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EDITORS' CHOICE
SHADOW PRESIDENT

p. 88

PC GAMES

An IDG Communications Publication

November 1992

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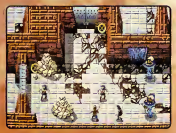

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by Ed Ferrell

Among the legions of computer war games on the computer-store shelves these days are four titles that let you play supreme commander. Whatever the conflict, whatever the weaponry, whatever the reasons, have you got what it takes? Find out as you test your mettle in Command HQ, Global Conquest, The Perfect General, and Siege.

34 A PERFECT PLAYGROUND

by Heidi E.H. Aycock

Fun and education aren't mutually exclusive: Good learning games let youngsters build skills and knowledge effortlessly. Four new children's titles — Reader Rabbit's Ready for Letters, Snoopy's Game Club, The Secret Island of Dr. Quandary, and Facts in Action — offer different approaches to the perennial problem how best to balance kids' work and play.

40 IT'S ALIVE!

by Barry Brenesal

All through the ages, our myths and legends tell us, we've been obsessed with the idea of creating human life — without using the standard set of tools. Can we at least program a machine to think like us? Today's game technology is at the forefront of such developments. It's the dawn of a new computer-entertainment age — faster systems, more-sophisticated digital play, the cutting edge of the art and science of artificial intelligence.

COVER PHOTOGRAPHY • LARRY OUNN

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Trade Up!

The Game You Grew Up With Has Grown Up Too!

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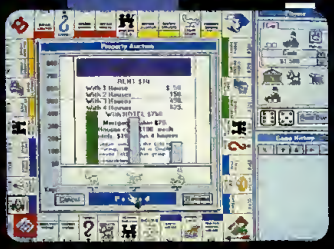
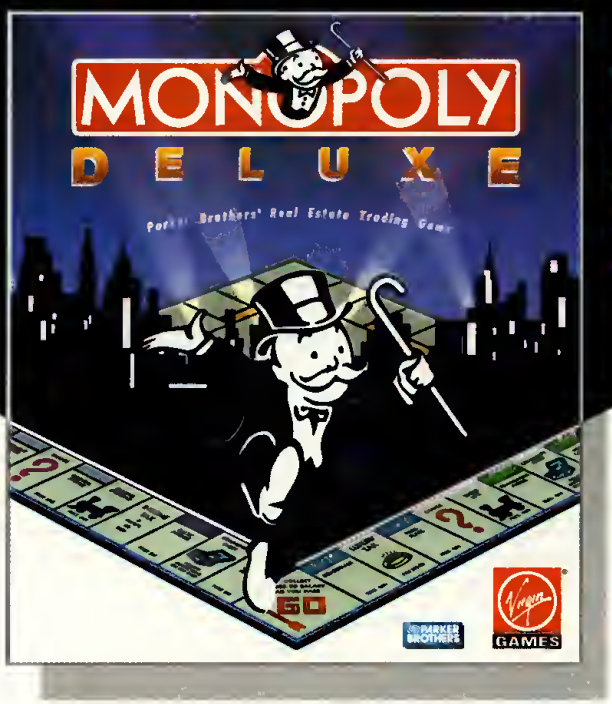


IBM PC version

WINDOWS ™ version

IBM PC version



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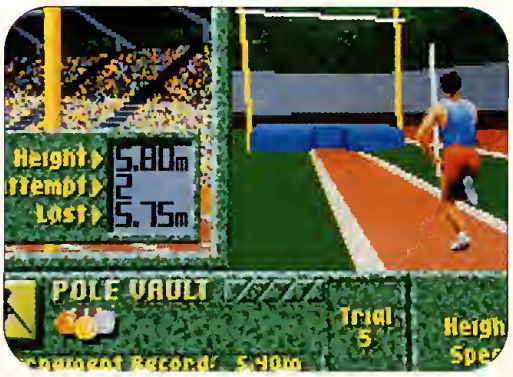

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EDITOR'S PAGE

MONSTERS AND MINIATURES

There be monsters here. Those words once appeared on mariners' maps to warn them that the unknown lay just ahead. There be monsters in PC entertainment, too — monster games.

First raised in these pages by Chris Crawford in a "Designers' Notes" column in the Spring/Summer 1992 issue ("A Word to the Wise," p. 160), the controversy of how big, big titles affect gaming is far from over. Do they scare away the beginner? Or do they rightfully pander to the hard-core audience, the players who buy and buy and buy, the players who lust after more, more, more?

Crawford brought an interesting analogy to his argument. Paper-map and cardboard-counter war games grew in complexity (and sheer physical size) until they overwhelmed the market — all but the most fanatic gamer — and then slipped into obscurity. But I'm not convinced that the analogy fits so nicely. I think the PC game market is big enough for both the quick and the drawn-out, the simple and the extraordinarily complex — not because there are two separate groups playing games, but because games are played for different reasons, and at different times.

Playing a monster game is a job. Learning the ins and outs of most major role-playing games, for instance, takes as much time and concentration as learning a major spreadsheet or word processor. You've got to like the genre before you start. People play monster games not only because they enjoy the experience, but because they set aside the time necessary to play. These are the games people play at home, at night, when the kids (or parents) are in bed. Games of smaller scope are more flexible. They're the snack food of PC games, ready to be devoured on demand. They come from categories like sports, arcade, puzzle, strategy, and education/edutainment. If playing a monster game is a job, think of smaller games as a way to mentally goof off.

People who like monster games don't play just monsters. They like the short and sweet, too. And even beginners usually harbor at least one tough title on their shelves. When time's tight, people can play short. When time's available, they can play long. Monsters and miniatures *can* get along in PC entertainment. You just have to know what to play, and when.

MOVING ON

My name's been in this magazine before, but never in *this* column. This one has belonged to Dan Muse, *PCGames*' editor in chief. Dan recently took a position as senior editor at *BYTE* magazine, a thoroughly technical computer publication that covers everything, it seems, *but* games. I'm going to miss working with Dan. He was, first and foremost, a friend, a stand-up guy. Just as important, he was a champion of PC entertainment, a great writer, and an almost rabid fan of sports games. *PCGames* goes on, of course. We'll still be here, all of us writers, columnists, editors, and artists. We just won't have quite as much fun.

— Gregg Keizer, Consulting Editor

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Impressions

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MAILBAG

LISTEN UP

In response to "A Word to the Wise," by Chris Crawford (Designers' Notes, Spring/Summer 1992, p. 60), this open letter is addressed to computer-game publishers, programmers, and game-magazine personnel. You're very talented, and you work hard to bring computer games to the buying public. And we appreciate it.

Most of you were gamers, some with roots dating back to board gaming. But when you crossed that invisible barrier from gamer to professional, you lost something. Gaming is no longer gaming for gaming's sake — it's now your job. Profit and loss, job security, deadlines, sales, paychecks, and other pressures get in the way.

You've forgotten the makeup of the typical gamer and why games are important to him or her. No, I'm not talking about "demographics" such as age and income, but about the *raison d'etre* of games — why games have existed and thrived for ages.

You've forgotten the times you spent your hard-earned money on a game based on a review, only to find it wasn't "as advertised" because the review left out important information, or the reviewer focused on his or her personal likes or dislikes.

You've forgotten the times you had to read and reread poorly written manuals because they too left out important information or were so technical they were indecipherable.

Instead you say, "Get with the program — or we'll lose it all." But we'll go one step further and make an even bolder statement: "Within two to five years the computer-gaming industry may only be a shadow of its former self unless the program is changed." Why? Because the program you want us to get with is driving gamers away, not bringing them into the fold.

Let's consider one aspect of the "program," as seen through the eyes of the consumer: "respect for the heterogeneity of the community."

In the 1980s gamers had a choice of computers — good, basic, affordable, functional machines such as the C64. You could use most machines for years and play the available games without doing any serious upgrading. The industry grew and thrived because it made games available for any machine. But then the industry decided arbitrarily to make the 286 the standard. That's when the "program" began to derail. Publishers virtually stopped making games for those affordable machines; what "trickled down" were half-hearted copies.

Since then, many more gamers have dropped out because of the continual stream of upgrades, add-ons, and new standards. And what's to come with CD-ROM and multimedia? The industry is giving itself an "elitist" image, a "moneyed" aura, such that you're going to be playing only to gamers who can afford to keep up.

As for magazines, many gamers are beginning to feel that game publications are becoming "mouthpieces" — an extension of ad rhetoric. To read most reviews these days, you'd think there's no such thing as an average game, much less a poor one. Do you point out errors and problems, or do you try to sugar-coat your evaluations?

The choice is yours: Either put up with an increasing number of complaints and a shrinking pool of gamers, or begin changing the "program" to include all gamers. You'll have to show us the same respect you expect from us.

Chris Keller
The Chred Group
1 Marathon Court #1-B
Baltimore, MD 21228

TRAPPED IN THE CLOISTER

Any fans of Interplay's **Future Wars: Adventures in Time** out there? I'm stuck. I've gone through the office scene and the village, but I'm stuck in the monastery, and I can't find any hint lines. Can anybody rescue me?

Stephen Anderson
23111 Petrich Lane
Tomball, TX 77375

LOSING IT

Help! A while ago I bought a computer game called **QuestProbe #2: Spiderman** (database version 2.6), by Scott Adams. Supposedly, it's a very simple game. Ha! I've been working on it off and on for the past five years and still haven't solved it. The game has been discontinued, and the hint/solution book (which, fool that I am, I never sent for) is no longer available. A call to Marvel Comics resulted only in hilarious laughter on the other end of the line. I'm going bonkers. (And my sister has threatened to kill me in many painful and protracted ways if I don't stop talking about this.)

If there's anybody out there who can help me with this game, or who can at least give me a clue as to how I can track down Scott Adams, the devious mind behind it, please contact me. I'd appreciate a copy of the hint book, if there's someone who was smarter than I was and sent for it.

Thanks to anyone who can help. And don't you dare laugh at me — I'm going down for the third time.

Brenda R. Hall
P.O. Box 199
Sadorus, IL 61872

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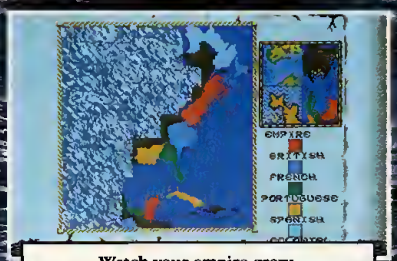

Watch your empire grow.

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Impressions

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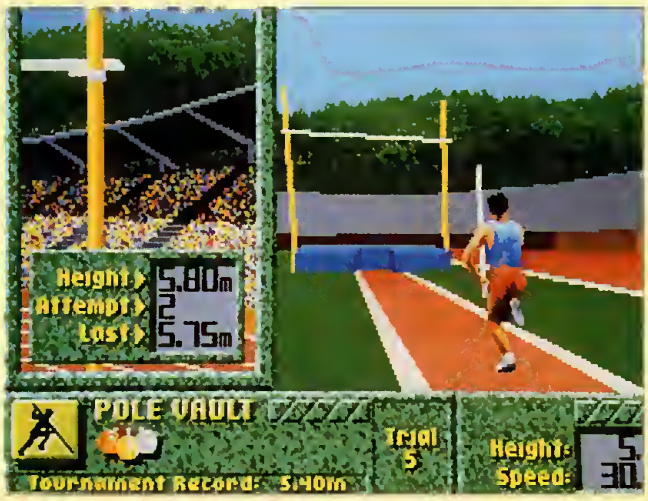
THE GAME PRESERVE

SPORTS AND SPOOKS

Get physical — or ethereal — with Accolade (San Jose, CA) this fall. Now you can go for the gold even if you didn't make it to Barcelona. **The Games: Summer Challenge** ($54.95) presents eight events — pole vault, high jump, javelin throw, 400-meter hurdles, cycling, kayaking, equestrian competition, and archery — in which you go against the computer or up to nine other players. For a real you-are-there feel, the game features animation based on digitized footage of actual athletes performing in the various events. This title was designed by MindSpan, whose previous efforts include Winter Challenge (but you guessed that already). For more information, see October's feature "Play Hard," p. 36.

If you prefer to swing, not sweat, survey **Jack Nicklaus Signature Tour Volume I** ($24.95), the first add-on disk exclusively for use with Jack Nicklaus Golf & Course Design: Signature Edition. Two courses are featured: the links at Muirfield in Scotland, site of July's British Open, and Muirfield Village Golf Club in Ohio, site of the Golden Bear's annual Memorial Tournament.

If you like to swing for the fences, not the greens, step up to bat with the **HardBall III MLBPA Players Disk** ($24.95). Accolade recruited the Major League Baseball Players Association, so this add-on for the Al Michaels game features active players from the National and American Leagues and their stats through mid-season '92. You'll also get their digitized color photos.



Summer Challenge features realistic animation.

For more baseball realism, look for the **Big Leagues Ballpark Disk** ($24.95) for HardBall III. It features 18 stadiums from the National and American Leagues that reportedly play like the real thing.

Additional season schedules, including one for expansion teams, are also provided in the package.

Visit WaxWorks for a deliciously creepy foray into horror.

Remember Elvira — and Elvira II? Those creepy games were designed by HorrorSoft, the folks who plan to scare you again in Accolade's **WaxWorks**. It's another graphically explicit role-playing game, plunging you into a bone-chilling foray through five gruesome worlds.

Uncle Boris has just died, leaving you his Dodge and his prize possession, a wax museum. Unlike "normal" ones of its ilk, however, WaxWorks is filled with dark, treacherous beings from Boris' imagination, as well as duplicate criminals, witches, and monsters from history and film. When your brother disappears inside this creepy place, you've got a scary search on your hands. For more information, you can conjure up Accolade at (800) 245-7744.

SSI SPELLS FRPG

Strategic Simulations Inc. (Sunnyvale, CA) is set to cast a few new spells in the fantasy arena. First, you're expressly summoned to **The Summoning** ($59.95). This RPG takes you through secret sewer passageways of the Citadel and deep into another dimension as you try to stop the Shadow Weaver's dark plans.

Cyber Empires ($49.95) combines strategy with fast-paced arcade action. Your orders are to construct, command, and conquer in

a fight for domination of the planet Orion.

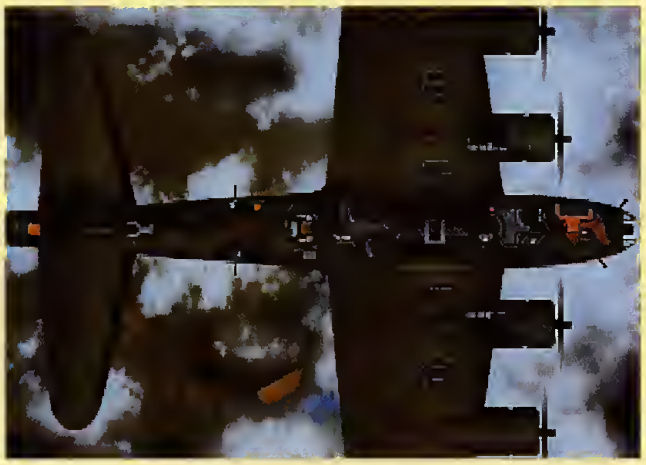
Along the way, gamers move armies around the world, build factories to create more cybernetic warriors, then engage the enemy in pulse-pounding fighting.

Naturally, SSI has still another AD&D RPG adventure due. **Pirates of Realmspace** ($59.95) transports you to the world of Spelljammer with a space adventure game set in the universe of Forgotten Realms. You'll have your hands full and your mind maxed out as you take on fierce alien adversaries, chase space pirates, and try to quell a mutinous crew in both real time and turn-based combat.

If you're new to SSI's fantasy world, check out the **AD&D Starter Kit** ($69.95), containing the beginning volumes of three of the most popular fantasy RPGs ever: Pool of Radiance, Gateway to the Savage Frontier, and Champions of Krynn. You also get clue books for each game.

Maybe Krynn's already on your PC games itinerary. Then consider the special **AD&D Collector's Edition: Dragonlance Series** ($69.95). This three-game set contains Champions of Krynn, Death Knights of Krynn, and The Dark Queen of Krynn. It's a gamer's paradise: You'll role-play for days. And since you can transfer your characters from game to game, you'll advance to high levels, learn volumes of spells, and, of course, encounter hordes of monsters.

Find out what SSI has up its sleeve by calling (408) 737-6800.



It's your chance to pilot the Memphis Belle in Flying Fortress.

MULTITUDES FROM MICROPROSE

First off MicroProse's (Hunt Valley, MD) flight deck is the new **F-15 Strike Eagle III** ($79.95). This sim follows in the tradition of the first two titles in the F-15 series, but blends 3-D polygon and bit-mapped graphics technologies to produce stunning visuals. (See "Pushing the Envelope," October's Top Gun column, p. 18, for details.) Campaign mode lets players fly a wide range of missions. A new two-player combat capability features head-to-head dogfighting, a pilot/weapons officer collaboration mode, and two-plane mode for side-by-side flight in the same mission.

If you're into classic flight instead, climb into the cockpit of **B-17 Flying Fortress** ($69.95). This title re-creates the WWII missions of that legendary bomber *Memphis Belle* over occupied Europe. You'll fly 25 daytime sorties; select ten crew members by studying their past mission performances, promotion records, and medals. You'll allocate crewmen to specific tasks, and you can control each one, from pilot to tailgunner.

Seagoing WWII warriors can set sail with **Task Force 1942** ($69.95). This one focuses on the Solomons Campaign in the Pacific Theater. You command and operate a task force of destroyers, cruisers, and battleships against Japanese naval personnel for daytime and nighttime fighting. MicroProse is releasing Task Force to coincide with the 50th anniversary of the Guadalcanal Campaign. Next out of the docks is **Flattop**, to be released later this year.

You're up against the Japanese fleet in Task Force 1942.

The company's also poised to attack the world of sports this season. **World Circuit** ($59.95) is a Grand Prix racing simulator that takes you to 16 Formula One arenas. Your competition consists of 25 drivers, each under independent computer control. PC racers will fine-tune their cars to meet specific characteristics of each track, and will guide their crews during pit stops to save valuable time.

Golf? From MicroProse? Fore! You get six courses, 3-D graphics, ten types of games, a full handicap system, and eight ranked computer players in **Greens** (price unavailable at press time). You can enter 18-, 36-, or 72-hole tournaments as you prefer. Options include loading an old game, replaying saved shots, and playing with right- or left-hand swing.

And here's still another MicroProse first — a new animated graphics adventure with a humorous twist. **Rex Nebular and the Cosmic Gender Bender** ($69.95) takes place on Terra Androgena, a planet populated entirely by bizarre alien women. A priceless vase has been stolen, and Rex is the only

man experienced, skilled, and foolhardy enough to retrieve it. You'll journey underwater and underground as you help our cosmic stud unravel endless puzzles and mysteries. For more information, call MicroProse at (410) 771-1151.

UP AND AWAY

Ever notice that after making a few hundred million or so in business, a lot of tycoons get the urge to start their own airlines? Now you'll get to play emperor of the skies, too, thanks to Impressions' (Farmington, CT) new simulation **Air Bucks** ($59.95).

The game opens in 1946; you've got one runway, a brand-new DC-3, and just a few dollars to spare. You've also got competition — up to three other airlines vying for landing rights and passengers. Think you can hold out longer than People's Express? You get to call the shots — where to buy property, which planes to purchase and when, how much to spend on maintenance and marketing, how much to charge per flight, how much space to devote to cargo, first class, and coach. Animated graphics and lots of customization options (number of players, city populations, introduction dates for new planes) draw you in; pull-down menus make game play easy and let you concentrate on the important stuff.

There's no Chapter 11 in this one, though — if you go bust, you're in for a hasty departure. For more information, contact Impressions at (203) 676-9002.

Greens tees off with 3-D graphics and plentiful course options.

WELL-ROUNDED ACTION

Three-Sixty (Campbell, CA) is ready to dispatch a squad of military games this season. **Patriot** ($69.95) is an operational-level simulation of modern land combat. Players can organize units into command structures with their own objectives, and control forces to the battalion level. The game also features accurate stats on modern combat equipment in current international arsenals.

V for Victory: Utah Beach ($69.95) thrusts you into the role of a military strategist during the Normandy invasion of WWII. As the American commander you must overcome some strong German resistance to occupy the Cotentin peninsula and the vital port of Cherbourg. Or, as the German commander, you must defend Cherbourg and drive the Allies back into the sea.

Velkiye Luki ($69.95) is the second title in the V for Victory line. This one takes you to the infamous Russian Front and to the ancient fortress town of the game's title during the bitter winter of 1942-43. At stake is the essential railroad supply line for the invading German army.

Harpoon players can upgrade their sea-war action, thanks to the new **Harpoon Challenger Pack Signature Edition** ($79.95). The package includes Harpoon game version 1.3, BattleSets 2, 3, and 4, and the accompanying Scenario Editor. The **Harpoon Designers' Series** ($49.95) lets you create up to 12 additional scenarios for all four BattleSets, with new aircraft, ships, and submarines.

And for those of you who wonder occasionally why you like war games at all, check out **Insight** ($79.95). Using the same software technology NASA employs to select astronauts, Insight analyzes your personality structure and the way its components influence your personal and professional interactions on a day-to-day basis. For more information, connect with Three-Sixty at (408) 879-9144.

NEWS FROM EA

Electronic Arts' (San Mateo, CA) foray into new territory this season includes **Grand Slam Bridge II** ($49.95), which aspires to be the most complete card game of its kind ever. New players get a library of tutorial hands, as well as a practice mode and hint features. Experienced players can challenge the program's wide range of bidding and playing skills, such as Blackwood, Stayman, Jacoby Transfer, ruffs finesse, card counting, and lots more.

Financial Cookbook 2.0 ($49.95) is a personal and small-business money management package featuring interactive on-screen examples of common questions in the areas of taxes, investments, savings, home mortgages, and refinancing. You can create some "what if" scenarios and see sample solutions, too.

Studio/8 for Windows ($299.95) brings EA's professional 256-color VGA paint and image-processing program to that alternative PC environment — ideal for graphics designers, desktop publishers, and multimedia artists.

Keep your eyes open this winter for a new chess game from EA, as well — a significant licensing agreement is in the works. Stay tuned.

EA also plans to take you to some new far-out worlds. First, it's snagged **Ultrabots** ($59.95) from Data East. Here's the plot: An alien craft releases a deadly cargo of mammoth killer robots on Earth. Mankind's only hope is a pack of retrofitted

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The role-playing adventure **Black Crypt** (price unavailable at press time) is also coming to the PC. You're going down, down, down into a seemingly unending maze as you attempt to defeat the hideous forces of the evil Dark Lord Esteroth. In this fully animated epic, you create a party of warriors and lead them through 20 perilous dungeons.

In January '93 you can enter the complex fantasy world of **The Bard's Tale IV** ($59.95), but this time you won't have to confine your RPG endeavor to the PC. Although many computer fantasies are based on books or board games, The Bard's Tale world has been adapted from the small screen to other media. Bard's IV, the board game, is due out from Grenadier, which will also offer a deluxe edition with pewter figures, two sets of lead miniatures, and two game modules. Baen Books will publish three Bard's Tale volumes, as well. For more information, contact EA at (415) 571-7171.

INQUIRING MINDS

The fun of role-playing games is all in your mind, you might say; now Mindcraft (Torrance, CA) brings them to life on your PC screen, too. In its new title **Mercenaries** ($59.95), you've just graduated from the Marine Academy when an influential ex-general makes you an offer you can't refuse — commanding your own band of mercenaries on hush-hush interplanetary missions that even the military doesn't know about. Create your own squad members and watch them gain experience after each mission. Every mercenary, foe, civilian, and alien has his (or her or its) own personality.

Visit brave new worlds, encounter strange races, and fight, fight, fight: You command awesome interplanetary forces in **Legions of Krella** ($59.95). This is a real-time space strategy game in Mindcraft's Star Fleet series. You can bombard your enemies from orbit or send in elite shock troops for a little close-quarters fighting. Your planet-hopping combat spree features gorgeous VGA graphics.

It's been a while since we've visited the world of Deruvia and Gurtex, hasn't it? Now in **Magic Candle III** a dark blight is spreading across the land. Your hero and his or her companions will find new countries to explore, new spells to cast, new people to befriend, and new monsters to slay. Determine your role in all this by calling Mindcraft at (800) 525-4933.

Suncom's PC Command Control: state-of-the-art game play.

GET IT UNDER CONTROL

Nintendo and other video systems have made the handheld control pad an effective piece of gameplay hardware. Now Suncom Technologies (Niles, IL) would like PC gamers to give it a shot, too. Its new **PC Command Control** device ($29.99) should free deskbound players and add some spice to arcade and flight-sim software. The unit features five fire buttons and a unique circular directional pad for 360-degree control.

And for traditionalists, Suncom has a new joystick, too, featuring a sleek ergonomic design that long-distance flight-sim pilots will particularly appreciate. You can twist the **FX 2000**'s ($39.99) unique pistol grip to form a comfortable angle with your arm and wrist. The top-mounted fire button sports a nice V design. You can also set cursor control, adjust the throttle, and select fire buttons. For details, call Suncom at (708) 647-4040.

SPORTS FROM MICROLEAGUE

Get out your playbooks and chalkboards, PC coaches — **MicroLeague Football 2** (Newark, DE, $49.95) is about to kick off. Take the helm of one of 28 pro teams or select one of the all-time great teams. New features include digitized video football footage and playbooks customized for each team.

You can even make your players come alive by downloading stats via modem or disk for up-to-the-minute action. Also available for MLF 2 will be add-on disk sets, a **General Manager/ Owner Disk**, and **Season Disks** for each year from 1986 to 1991.

If you like more *foot* in your football, try **MicroLeague Action Sports Soccer**. This game breaks with the company's coach-oriented tradition. It's the first in a series of action/ arcade sports software. You'll be trying to lead the Manchester United Football Club to the preliminary awards: the European Cup, the European Cup Winners Cup, the UEGA Cup, or the European Super Cup. The game contains a total of 170 European teams. You can bet hooligans won't cause a disturbance here. Check out MicroLeague's kicks at (302) 368-9990. ❑

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TOP GUN

REV UP THE ENGINE

Switch on the reserve tank — add some extensions to your flight simulator for more time in the air.

By Cameron Crotty

Buying software is either crazy stupid or the mark of instinctive genius, depending on how you look at it.

A non-gamer would say you can imitate purchasing a flight simulator by flushing $50 down the toilet and watching *Top Gun* and *Airport '79* for 50 hours (roughly the life expectancy of the average game).

But to a PC game enthusiast, the price of a new software package is a pittance in return for a new world to explore.

Once you've committed time and dollars to a virtual world, why leave it behind? If it works, why not expand it? This month, Top Gun flips the switch on the reserve tank and flies further than ever before with flight-sim extensions.

THEY MIGHT BE GIANTS

Microsoft should rename its simulator the Microsoft Flexible Flyer. There aren't any sleds in the air, but there are more extensions for Microsoft's **Flight Simulator 4.0** than any other sim out there. Two entire companies, Mallard and SubLOGIC, make a living selling nothing but Flight Simulator extensions.

Mallard, out of Lewisville, Texas, provides several categories of extensions, ranging from scenery disks to the **Sound, Graphics, and Aircraft Upgrade**, which adds digitized sounds (including tower and instructor voices if you own a SoundBlaster), increased graphics resolution, and four new airplanes.

Or, for the bureaucratically inclined, you can add **Flight Planner** or **FS Pro**, which let you plan your airborne excursions carefully and keep accurate flight logs along the way.

Mallard's latest project is **Aircraft and Adventure Factory**, which adds a shell to the Flight Simulator engine. You can program this "adventure/electronic flight instructor" to monitor your current pilot's position, altitude, and speed, and to give prerecorded feedback at specified points.

You could take your friends on a guided tour, or create a scavenger hunt during which pilots have to find specific points. The Aircraft Factory part of the package lets you use component parts to design your own planes from the ground up.

SubLOGIC should be familiar to veteran flight-sim pilots — it's been working on computer flight since Chuck Yeager was in diapers. (Well, maybe that's an exaggeration, but calling the company's collection of scenery disks *stunning* isn't.)

SubLOGIC's scenery coverage of this country is somewhat spotty, but you can go more places in the world with SubLOGIC than with anyone else.

You can use SubLOGIC's scenery disks both with Flight Simulator 4.0, and with SubLOGIC's own simulator, **Flight Assignment: A.T.P.** SubLOGIC is also working on **Flight Assignment: Air Force**, which starts you out in a T-37 trainer, and teaches you how to fly a jet. Look for it around Christmas.

RULES OF ENGAGEMENT

If you've been yawning behind the stick of your F-16, re-running missions and flying bomb patterns with your eyes closed, snap to attention, because civilian simulators aren't the only ones getting upgrades. Spectrum HoloByte and MicroProse are wrapping up packages that will put fresh bogies on your scopes in time for the holidays.

Operation Flying Tiger, Spectrum's **Falcon 3.0** add-on, includes a graphics upgrade, new features, a modified F-16 (the FSX), and three new campaigns (the Kurile Islands, Korea, and Kashmir) that test not only your flying skill, but also your nerves.

This is the first simulator that forces players to adhere to clearly defined rules of engagement. You may be assigned to a deterrence mission, for instance, with clear orders not to return fire without authorization, even if attacked. If you waste anything that doesn't squawk when you hit the IFF (*Identify Friend or Foe*), you can expect a quick court-martial.

Chopper-sim pilots also get expanded battle zones with MicroProse's new **Gunship 2000 Scenario Disk**. The package includes two new areas — the Philippines and Antarctica — plus extensions to the Persian Gulf and Eastern Europe scenarios that let you slice and dice all manner of gun-toting sickos on city streets and rugged desert terrain. To top it off, the package also includes a mission builder to keep you busy on long winter nights.

THE PETER PAN SYNDROME

Although they're working overtime to push out the latest, hottest simulators, software publishers are also recognizing the huge base of players who are eager to give their tried-and-true sim engines new life. Simulators may get old and pilots may get gray, but the worlds you fly can last a long time with upgrades and extensions. ❑

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ROLE CALL

SPACE OPERA

Why (no) sci-fi?

By Bernie Yee

Look at the sales figures for computer role-playing games and you'd think that swords, magic, and dungeons are required elements for success.

But fantasy isn't necessarily the only way to tell a role-playing story. Fertile lands, long ignored by role-playing game developers, await in the world of science fiction (SF).

So far, SF role-playing games lack the technological dazzle found in such heavyweight fantasy-based brethren as Ultima Underworld or Might & Magic III. Sure, SF games abound, but they're mostly trapped in the action- or adventure-game genre, not in the role-playing fold.

Origin's tried-and-true **Wing Commander** series is a perfect example, a game that leans heavily on its space action rather than its space-opera story. Only a few samples of SF role-playing games have managed to get from idea to hard drive — Legend's version of Frederick Pohl's **Gateway** novels, for instance. But science fiction offers a brave new world of role-playing themes and plot devices. Developers should take advantage of the genre.

Fantasy works with lightning bolts and fireballs; SF games rely on plasma beams and mechanized battle armor. Which sounds more believable?

In fact, this inherent believability is SF role-playing games' unique hook. They're believable because their premises, though fiction, are rooted in reality.

It's not impossible that someday people will be sprinting down a corridor back to their starships; you can't say the same thing about a fantasy world where folks fight dragons. The latter is utterly attached to mythology, a world that not only doesn't exist now, but one that can never exist.

FICTION YOU CAN BELIEVE IN

By virtue of this believability, SF role-playing games have access to a host of cultural metaphors that can lure the player into the game's premise and plot line, metaphors typically absent from fantasy titles. Remember the movie *Aliens*? Those tough-talking Marines were simply retreads of their modern-day counterparts, which helped you empathize with them immediately.

SF role-playing games have made only limited use, it seems, of the genre's possibilities. **Planet's Edge**, from New World Computing, is an excellent game, reminiscent of **Wasteland**, a role-playing classic. A few years before that, Electronic Arts released **Hard Nova**, a solid SF game that's more fun than SSI's newest fantasy game, Prophecy of the Shadow. Will designers take the hint, and (gasp!) head for science fiction's wellspring of ideas? If the past is any indication, the odds aren't good.

Everyone knows TSR's Advanced Dungeons & Dragons, the seminal role-playing game that inspired everything from Wizardry to the hugely successful SSI line of computer games. But how many have heard of (much less played) **BattleTech**, a SF game system designed by FASA that includes enough technological gadgetry to make your fantasy glass swords look like salad forks?

BattleTech is based on the premise of a galaxy in the far future, when wars are fought with giant robots piloted by knights and mercenaries. Civilization collapsed from internal strife, and has only begun to pull itself back from the brink. Throw in a returning mass of technologically superior expatriates (more shades of Dune) and you get a great romp as hero, villain, or mercenary.

Mediagenic released three FASA BattleTech games (**BattleTech: The Crescent Hawk's Inception**, **BattleTech 2: The Crescent Hawk's Revenge**, and **MechWarrior**) before the company went bankrupt, with the promise of an even-spiffier **MechWarrior 2** in the wings. It's now selling all three games in a package deal.

Rough around the edges, BattleTech 2 and MechWarrior both hold hours of fun; the original BattleTech is at least diverting. MechWarrior has found some measure of immortality on the on-line service GEnie, where a much smarter, improved multiplayer version lets you pilot BattleMechs against human opponents. Although BattleTech doesn't have alien races, it's a universe of great gaming potential — yet FASA has still not found a new licensee.

LOOKING AHEAD

The future isn't completely bleak. SSI has a new offering in the works, M. It's still too early to tell, but initial reports indicate that at least the graphics images are impressive.

FASA's other license, **Shadowrun**, a SF/fantasy hybrid, and the next BattleTech game (perhaps based on the MechWarrior 2 engine) are still a couple of years from shipping; and Interplay hasn't officially killed off **Mean Time**, the purported sequel to Wasteland. Until then, I'll have to heft a sword until someone offers this cyborg a better blaster. ❑

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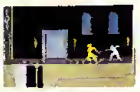

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SPORTS PAGE

ROLL YOUR OWN

PCs and video-game decks butt heads on sports. Which is better?

By Wayne Kawamoto

That Nintendo in the corner is no computer, you laugh. A computer, a real computer, is the big gray PC hunkered down on the desk over there. Compared to a video-game machine, you think, your PC is like a Formula I racer barreling down on a gaggle of Yugos.

True enough, a video-game machine can't add columns of numbers, do desktop publishing, or process your words. But ask one — the Sega Genesis in particular — to play sports and you may have to eat your words. In fact, the confrontation between video game and PC doesn't bode well for fans of the big gray box. Too many times the answer to "which is best?" comes hard to PC players. Are sports games simply meant for the cartridge?

PLAY IT, DON'T MAKE IT

You probably take for granted the kind of great graphics and sound you get from something like the Genesis. But sports games on the Sega feature surprising depth and strategy. Take football, for instance.

The PC has several terrific football games on its roster, like Accolade's **Mike Ditka Ultimate Football** and Electronic Arts' **John Madden Football II**. But the Genesis matches those, sometimes toe to toe, for along with Sega's own **Joe Montana II Sports Talk Football**, the Genesis playlist includes both **Mike Ditka Power Football** and **John Madden Football '92**. All these games, on both cartridge and disk, let you manage teams, call plays, and control arcade action.

In particular, Madden's namesake on the Sega stresses strategy, for it provides the kinds of scouting reports and position matchups that once were found only on floppy disk-based games. But it lacks the computational power of the PC version, which goes a step further to compare offensive against defensive lines directly in a search for weaknesses and ways to exploit those weaknesses. Even more telling, Genesis football games can't let you create your own plays, or edit player stats — two big pluses on the PC side.

Baseball fares much the same. Compare games like Accolade's **Hardball III** on the PC with Sega's **Sports Talk Baseball**, and they match up well in several key areas: You can set lineups and positions strategically, call pinch hitters, and select pitchers. But like football, baseball games on video decks simply can't load and edit stats the way a PC can. PC baseball titles like **Earl Weaver Baseball II, Tony La Russa Ultimate Baseball**, and **Hardball III** import stats, then edit them for more versatility. The PC baseball player can, like his pigskin counterpart, update player stats as the season progresses. No video game can do that.

PC golf games also have more depth than their Genesis counterparts, primarily because of course-building capability. Accolade's **Jack Nicklaus Signature Edition**, for example, sports a course architect that lets you design your own holes, while Access' **Links** has numerous add-on courses. The Genesis can't do either.

BIG-SCREEN ACTION

But when it comes to graphics and sound, the Genesis generally prevails. Football's complex action graphics and animation, for instance, are much easier to follow on the relatively large television screens used to display video games. Computer monitors, in comparison, look cramped when they're filled with lots of players.

There are exceptions. Hardball III's graphics on the PC are actually more detailed than Sega's Sports Talk Baseball, while Links looks far more realistic than EA's **PGA Golf Tour** on the Genesis.

On the sound front, both platforms convey the roar of the crowds and the grunts of the athletes. But the impressive play-by-play announcing of cartridges like Joe Montana Football and Sports Talk Baseball are smoother than what you hear from Al Michaels in the PC's Hardball III. (Don't forget — to hear speech on the PC, you have to pop for an add-on audio board.)

When it comes to arcade action, both the PC and the Genesis play at a high level. In football and baseball, the platforms are virtually tied. So, too, with golf, for the software on both systems operates much the same way, down to features like the familiar power bar and attractive scenery.

Down on the bottom line, the Genesis rivals the PC as a sports player when it comes to action, graphics, and sound. What it lacks is the PC's ability to add and create new courses, players, teams, and plays.

For the sports-gaming purist, the person who wants up-to-date stats, to create new scenarios, PC sports games are unparalleled. For everyone else, video-game machines like the Genesis offer almost everything else that makes a sports simulation fun to play — and all at a fraction of the cost of buying a real computer. Now who's laughing? ❑

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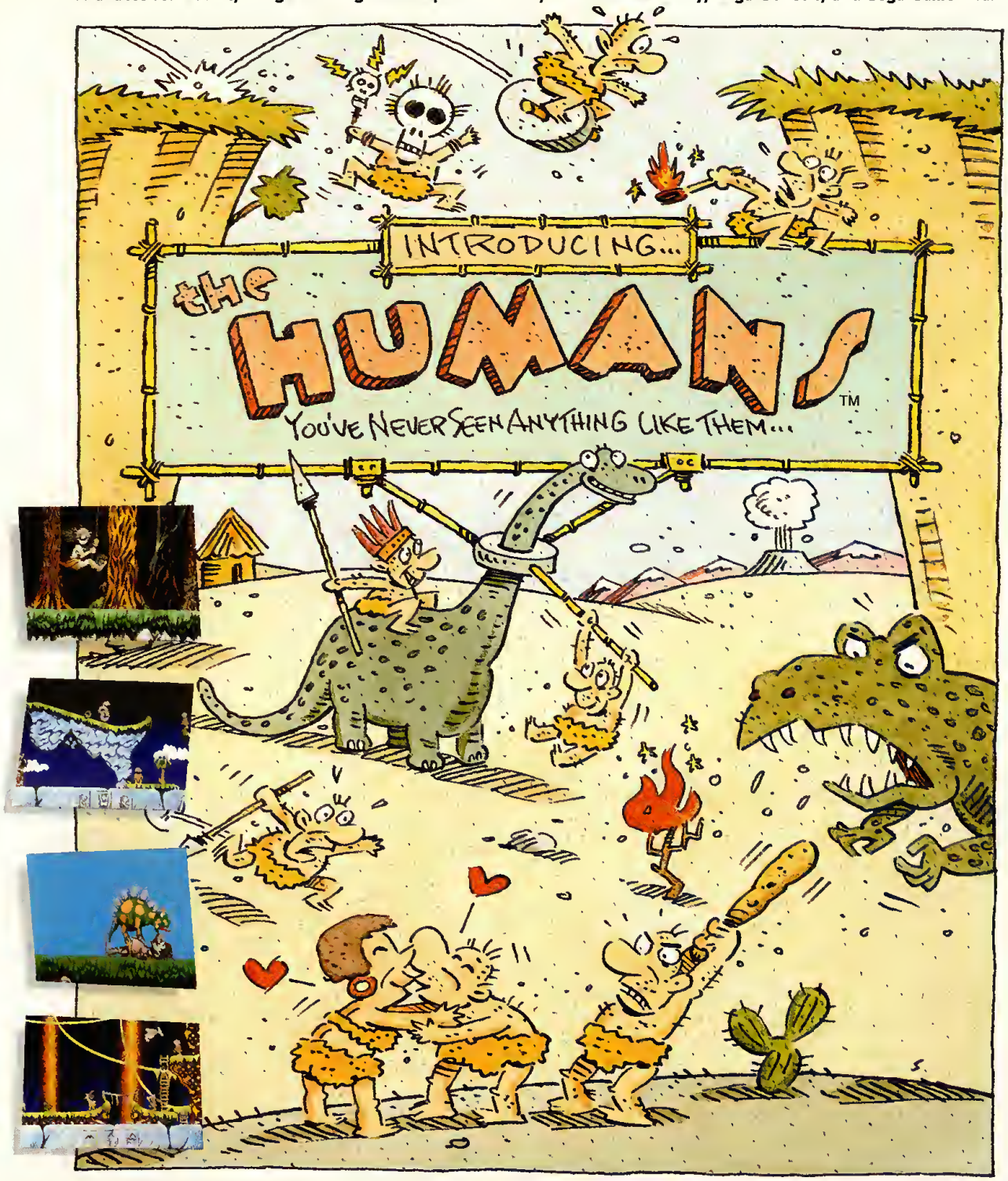

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YOU ARE THERE

GET REAL

Computer-made players that don't think don't cut it.

By Peter Olafson

My wife doesn't like computer games. Oh, she tolerates the ones where little animated figures walk around — they remind her of cartoons — but more often she complains that they all look alike. And with something like Risk or Stratego, she just doesn't see the point.

You have to agree on the latter score: It's a long march from cardboard to motherboard, and too often something vital is lost when board games are translated to disk.

PC'S NO FRIEND OF MINE

Computer board games have always represented a bittersweet compromise. We sacrifice that least predictable variable — the alternately smirking and scowling bloke across the table — but solicit the most impartial of arbiters.

We gain a bookkeeper, but lose a friend. A welcome bookkeeper, to be sure, but for my money, it's still a raw deal.

For one thing, computer board games rarely exude any physical presence; they just don't project themselves beyond the screen. Board games just sit there looking smart and playing dumb.

And there's no tactile feedback — none of the pleasure of holding the play money, moving the pieces, and perhaps noticing the way one was ripped when you punched it out or dented when the baby decided it was a pacifier.

The real-world board game becomes a tangible reflection of a family's life. A computer board game — whether it's **The Perfect General** or **Third Reich** — has no history. All the pieces are identical, and none of them is ever lost in the back of the closet.

Twenty years from now, you'll play Virtual Panzer Leader with Moe, Larry, and Curly, and enjoy a very vivid impression of the game occupying space.

But for now, we deal with a cold, static screen, and play games that might as well be on TV. As my wife says, "What's the point?"

ANYBODY HOME?

Well, "physical presence" doesn't have to be a fact. It can also be a feeling. One way to project that feeling is to create a robot player to sit across the board and act convincingly like a real person.

Too often computer opponents are stolid, plodding creatures. They don't seize the initiative. They don't think creatively or act impulsively. Indeed, they don't think: They wait for conditions to be fulfilled, they insert numbers into formulae.

Once you understand the limits of the algorithms that drive them, you can adopt strategies to beat them remorselessly — which is, of course, no fun at all, because it feels like playing against a machine.

UP AGAINST THE MACHINE

It doesn't have to be that way. A basic, but shining, example is Virgin's recent Windows version of the classic board game **Risk**.

The original MS-DOS version was a nice enough game — if you didn't mind looking at the world map through a tube — but the computer opponent was a schlmeil.

It wasn't aggressive, it didn't follow through, and it didn't pursue a strategy so much as live from moment to moment.

The result? Anyone with even a general understanding of the rules could kick computer heinie from the get-go.

With the Windows version, I'm having trouble holding my own. The computer puts up a nice fight for Australia or South America during setup, tries to lay the groundwork for its own wholly owned continents, and goes out of its way to break up yours.

You expect the hammerhead with Rob Lowe eyes (the guy who hasn't liked you since Day One) to take you out, but a computer opponent? With a brain? What a concept. If it talked back and could fetch a Diet Coke from the fridge, it'd be almost human.

THE CREEP FACTOR

I suspect even more can be done. I've been messing around with an old Mindscape game called **Racter**. It's a name-dropping, crazy-sister version of the computer shrink Eliza.

Over time, through its questions and yours, it builds a portrait and then begins to feed things back to you — sometimes chaotically and sometimes with a frightening prescience.

Toward the end of the session, I asked Racter, "Where is my mother?"

"Your mother is in the great void," the machine returned. Correct, and creepy. I'd never told Racter that my mother died three years ago.

I'm holding out for computer opponents who are downright creepy — who study each of your moves, who know your strengths and weaknesses and hence, in a sense, know you.

Those will be the computer games that project the aura that ordinarily comes only from another person. Maybe I can even get my wife to play. ❑

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CHILD'S PLAY

WHERE THE GIRLS ARE

Well, just where are the girls? Where's the software that mimics the way girls play?

By Gregg Keizer

This is not an original column. In fact, people have been talking about this subject for years. And that's the problem.

Kids may be drawn to the PC, but those kids are mostly boys. There's simply not enough compelling software aimed at girls. Even now, a dozen years and more since the personal computer first showed its face at home, few developers take girls seriously, build software they're likely to use, or even try to come up with packages to draw this huge potential audience toward the PC.

Politically incorrect? Gender-specific madness on the loose? No, just realism.

WHERE'S BARBIE?

Boys have scads of software to take them from education to entertainment and back. From the early days of alien-blasting math programs to today's crime-scene geographical adventures, they've got lots of picks to start with. And when they move on to software that's strictly for fun, they have even more choices — role-playing games where blood flows like the Amazon, simulators that hand over macho machines, sports games with football and baseball and boxing. Where's the Barbie doll of computer software?

Barbie dolls may send shivers up your spine if you're a parent who swore that such retro-toys would never find a home in your house, but if you've got a young daughter, just try to keep them out. They're insidious, these legions of long-legged plastic women. Mattel's made millions from Barbie over the last 30 years, and for good reason: Girls like to play with them. What kids'-software makers must do, if they're to crack the gender wall, is come up with PC titles that draw girls to the computer just as surely as do those anatomically incorrect playthings. (For the record, there's a **Barbie** computer game, just out from Hi-Tech. Unfortunately, like too much software purportedly aimed at girls, it simply spreads Barbie as frosting on an inedible cake of a framework.)

The problem starts with competition and ends with cooperation. Stereotypical as it sounds, little boys like to compete, little girls like to cooperate. You can prove the point yourself simply by spending a few minutes watching an elementary-school playground. The boys hunker down at one end, playing competitive, action-oriented pretend. Who can jump the highest, scream the loudest, petrify the girls most regularly? Girls, meanwhile, try to assemble some sort of "groupware"-like play. Maybe it's pretend adventure in the forest, or a dance ensemble struggling to get the moves down right. But it's almost always much more cooperative: Groups form, and require a consensus before play begins or the focus changes.

The PC's problem is that there isn't enough cooperative kids' software. There are plenty of non-gender-specific games around, but how many let more than one child play at a time? Where's the software that mimics the way girls play with Barbie — making up endless cooperatives of Barbie pageantry, Barbie Olympics, Barbie news shows?

NOT GOOD ENOUGH

Some children's software seems pointed more at girls than boys, but as often as not, the gender aim is off. So when a PC package works for girls, it's almost an excuse for jubilation.

Take Sierra's **Mixed Up Fairy Tales**, for example. Not only can kids put a female protagonist on screen (many programs stop there), but the adventure is engaging, yet bloodless. But although this graphics adventure works with some child/computer cooperation, there's no opportunity for two kids to play together. They can share turns, of course, but that's not the same as two characters on screen working in concert, with two girls controlling those characters.

Another software hit with girls is Walt Disney Software's **Beauty and the Beast Print Kit**. This Print Shop in disguise produces greeting cards, bookmarks, signs, and the like, with clip art from Disney's animated feature. Still, the hook for girls is the movie tie-in and its characters, not a cooperative endeavor.

Even the vaunted **Where in the World Is Carmen Sandiego?** series can't accommodate more than one kid at a time. Though Broderbund rightly claims that children frequently play Carmen cooperatively, they do that outside the computer and its software, not inside it.

That's how kids — girls especially — make do. They crowd around the PC, taking turns, offering advice, jostling for the mouse. But they shouldn't have to. PC "edutainment" developers should wise up and design games that play as well with two (or more) as they do solitaire. If they did, girls might fight for PC time as hard as boys do. ❑

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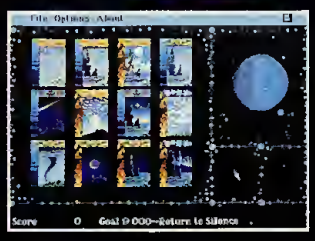

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Actual VGA screen shots

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PERIPHERAL VISION

SEEING IS BELIEVING

What you see is what you get.

By Barry Brenesal

The eyes have it when it comes to playing games. PCs may sport audio boards today, and maybe in a distant tomorrow they'll become virtual-reality game systems — but for the moment, computers work almost entirely in a visual medium. It's no shock, then, that the video hardware you own directly affects the pleasure you get from games.

So if you're thinking about upgrading your game-playing PC, think first about equipping the computer with a better monitor and video card. It's probably the most important change you can make to your PC.

BIGGER'S BETTER

Although there are many points to consider when buying a monitor, think size before you think of anything else. If you currently have a 14-inch VGA screen, consider a larger monitor to relieve information cram.

A 17-inch monitor costs several hundred dollars more than an average 14- or 15-inch screen, but the 60-percent increase in viewing area can often spell the difference between a cramped game and one that's fun. If visually complex, graphics-based games like Maxis' SimEarth, Millennium's Global Conquest, and Electronic Arts' Powermonger keep you at the keyboard, money for a bigger monitor will be well spent.

Terminology can get tiresome, but keep at least a few items in mind as you search for a new and larger monitor. *Dot pitch* is one. It refers to the distance between pixels. The smaller that distance, the less grainy the view on screen. Nothing over .31mm (millimeter) is acceptable, and .26mm is nearly ideal.

Another significant measurement is the *vertical scanning frequency*, which directly affects the rate at which screens are redrawn. The faster the better here: 70Hz (hertz) represents an acceptable starting point, with anything below just an invitation to bothersome (and eye-straining) flicker.

Speaking of flicker, avoid *interlaced* displays. Though they're inexpensive, these monitors redraw only half of the lines on screen in a given pass. If you spend time at the monitor (and what game player doesn't?), you won't be able to stand interlaced images.

But screen size is just one reason to upgrade. Screen resolution is another. *Super VGA* (SVGA) is rapidly shaping up as the next video standard, at least for games, with some critics claiming SVGA as the only logical current choice for a new monitor.

They're right, of course — *if* the games and other software you use require SVGA. Unfortunately, many programs don't utilize SVGA, much less demand it, while some developers (like Sierra and MicroProse) still create games that depend on lo-res (16-color) VGA or hi-res EGA.

Another piece of conventional wisdom says that *multiscan* monitors are a must for SVGA. The reasons for this, however, are fading fast. Don't neglect multiscan, but don't be led by it, either.

Downward compatibility is another matter. Make certain any new monitor you're considering can also handle all previous video standards.

SSSSLLLLOOOOWWWW

A far greater SVGA problem is its enormous *video-processing overhead*, enough to slow down your 386 to the speed of a steam-driven adding machine. No wonder the PC gets bogged down: Each 256-color, 1024-by-768 image forces the microprocessor to manage roughly 800,000 pixels. That's roughly nine times the number of pixels in a standard 640-by-480 VGA image. If you must have an SVGA monitor, give strong consideration to buying a compatible video accelerator board, too. It'll take the pressure off the PC's brain, bringing notable speed improvements to graphics-based programs and environments.

Other recommendations are, to be frank, a matter of personal taste. An *anti-glare screen* may prevent overhead lights from spotlighting the monitor, but it also leeches color intensity from images. *Digital tuning buttons* offer more-precise control over such factors as height, width, contrast, and brightness than standard analog knobs that twist left or right — but these old-fashioned controls are often easier to operate.

One piece of advice remains mandatory when you shop for a new monitor, though: *Try before you buy.* Take along a few games when you compare monitors. Experiment with the video controls, try out different kinds of lighting, and above all, take your time. That impatient sales clerk, after all, isn't shelling out the dollars — you are.

Keep that in mind, along with all the rest of the advice handed out here, and you should be well on your way to a successful video upgrade and thousands of hours of better game play. ❑

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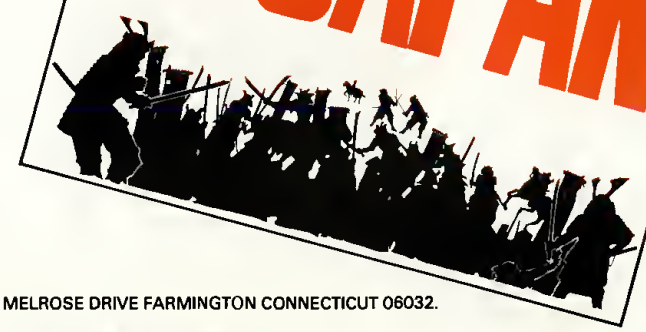
The game is full of sumptuous graphics.

CONQUEST OF JAPAN



Your Chance to get your own back! Conquest of Japan gives you five cities, each with money to hire armies -it is up to you to buy the right soldiers, and direct your armies to conquer Honshu, Japan's main island! In a truly epic production, you are both the general,planning campaigns, and the army commander, directing troops within each battle. All battles are played out in real time, with your soldiers moving into formation in fantastic, colourful animation! You can become as involved as you like -from watching progress, to instructing individual men if you wish to! You can even choose to play each battle in Hi Res (386/25 machines or better reccommended) or faster Low Res.

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GENERALS WANTED

STRATEGIC COMMAND ON THE PC

There's a warrior, a barbarian, a mercenary inside all of us — always has been. Whether armed with spear or flintlock, Flying Fortress or Fat Boy, throughout history we've fought for power, wealth, and territory.

Lethal technologies have sharpened war's pointed stick dramatically, but much of traditional military strategy, it seems, remains relevant. The record tells us that there are certain qualities of military leadership shared by all the great generals down through the ages, from Alexander to Napoleon, from Robert E. Lee to Erwin Rommel. Perhaps those talents are absolutely required — whatever the conflict, whatever the weaponry, whatever the reasons. And, so too, among the legion of computer war games you'll find on the shelves these days are four titles that demand a distinct talent for sound judgment and decisive action. Two are new and two are already popular; two are global in scope and two are fought on the tactical level. In one your command is made up of tanks and ships and planes; in a second you give orders to futuristic spy satellites; in another you take charge of archers and swordsmen, elves and wizards.

Four games let you play supreme commander. Whatever the conflict, whatever the weaponry, whatever the reasons, have you got what it takes?

Each game is a good test of your leadership abilities. Whatever the scenario, you must exercise prudent troop recruitment and management. You must be flexible. You must second-guess your opponent and seize the moment. And one element remains the same from game to game — you play supreme commander.

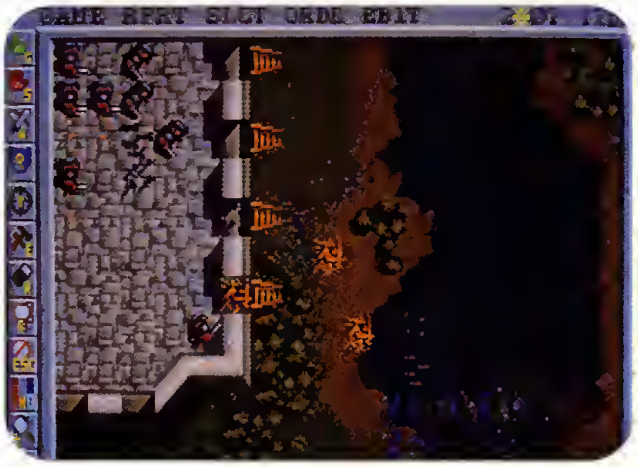
Take **Command HQ**, for example. This one may not be new, but it's far from heading for the dustbin. This Microplay game deserves its many accolades. From your command headquarters, you lead forces in a global clash of superpowers within familiar war-game mechanics. Commanding troops in far-flung theaters of war keeps you hopping from one hot spot to another, but only figuratively. As supreme commander, you're needed in the war room, and in this war room, fighting is allowed.

The battle's fought in real time, so while you're coming up with a winning strategy, your opponent may already be hitting back. Many victories turn on your ability to orchestrate forces in one area of the world while producing troops and equipment elsewhere. You can't be everywhere, so you'll have to be as good at triage as you are at launching invasions.

By Ed Ferrell Illustration • David Pohl

Inside your electronic fortress are four situation monitors lined up across the bottom of your screen, with updates on production levels, troop readiness, and campaign progress.

A Mercator projection of the globe takes up the lion's share of the screen, and even at the start it's clear that the world is poised for war. Familiar unit icons show your ground troops, ships, planes, and submarines. Take some time to survey the situation, but don't dawdle.



Step back in time to Siege's land of elves, wizards, and archers.

Once enemy units are engaged, crisis messages scroll across your screen. On the second monitor, an animated "film" of the current engagement appears. Zoom in on this monitor and you're transported instantly to the front. Order ground, sea, and air units to fight, dig in, or retreat. Conquering the enemy requires that you capture all capital cities.

Siege's exciting graphics draw you into the fray.

Marshaling massive arsenals of military might is enough of a chore by itself, but you must do even more. Victory hinges on the successful production and deployment of appropriate troops and equipment to the right area. Keeping a steady stream of reinforcements ready, resting your troops, and keeping attrition low force you to juggle elements in a militaristic dance Ed Sullivan never saw. You'll also have to watch your backside at all times.

As general, you're also a father figure. Keeping up troop morale requires that you rest weary soldiers. Repairing damaged equipment is quicker and more prudent than tiring new units by double-timing them to the front. Lean on air power to soften up entrenched positions, and work those heavy naval guns in concert with your ground-based assaults to improve your chances of victory.

Dogfights and air drops round out your attack arsenal, but anybody can just keep sending in the Marines. The prudent general must know when to strike alliances against a common foe, but you'll have to turn on your ally eventually if you want total victory. Along this line of "political" leadership, you can send foreign aid or dispatch behind-the-lines spies.

The historical scenarios fight realistically, but responding quickly and decisively (and correctly) to unknown situations is another hallmark of great military leadership. This talent is tested easily in the game's futuristic scenario (2023), where you'll discover different global alliances. You may be forced to evaluate your friends again.

All scenarios after WWII include a nuclear option. Capital cities are protected by SDI technology and are unavailable as nuclear targets, but most of the rest of the world is. This severe measure has far-reaching effects, and kill zones create vast, uninhabitable wastelands. Nuclear weapons are expensive, and world opinion is against their use, but if you must, you must. Others may have the bomb as well, and winter carols ring hollow when it's nuclear winter you're singing about.

When you grow weary, or get far enough ahead, you may open negotiations for peace. All things being equal, the superpower with the most cash and territory wins. A game-film option provides an easy way to improve your performance. Save a game, and replay it up to the point where you started mimicking Custer. Take over at that point, and do what you should have done differently.

TANKS FOR THE PLANET

The other half of Microplay's pair of strategy bookends is the unique sci-fi game **Global Conquest**. Much as in Command HQ, here you marshal familiar tanks, planes, and troops around the globe — only in this game, it's not our globe.

Your spaceship lands on another planet. Your goal is simple: Discover and conquer the world. A cloaked map reveals terrain only after you've moved into it. Once you have, however, you'll find that this world consists of familiar landscapes, from oceans and plains to mountains and swamps. Except for the continents, which are different each time you play, this planet keeps reminding you of the third stone from the sun. Much of that familiarity comes from the units you push around the world — ground, sea, and air — and their targets of cities, docks, and oil and mineral sites.

Unlike Command HQ, Global Conquest is no real-time frantic race. Instead, it divides the game into phases, so take all the time you need to survey a situation, then create and execute your strategy. It plays a little more like chess: While you're planning and giving orders, your opponent must wait.

Global Conquest accommodates up to four opponents, computer or human, so making and breaking treaties provides a nail-biting diversion from leading your troops. Even the computer players seem to have their own personalities, so before you rush into someone's open arms, make sure his hands are empty.

Don't dismiss Global Conquest as just another Earth-based war game. There's no telling when you or your opponent will be ravaged by earthquake, volcanic eruption, or flood. And when you're beset by alien plagues, solar flares, and space pirates, you'll definitely know you're not in Kansas anymore.

What really sets Global Conquest apart from Command HQ is its series of unusual scenarios. In *Guns and Butter*, for example, the goal is strictly butter: You try to accumulate money. *Guns and Butter* will convince you that most of warfare is taking territory (that's where the money is), and even a policy of genocide demands you take ground. (To wipe 'em out, you gotta get where they are.) *Live and Let Die* awards points for one thing only — slaughtering your opponent and taking no prisoners. Yet another scenario is *King of the Hill*, but still, it's mostly geography you're after.

Global Conquest's manual is full of precocious cuteness, and in the end the subtext evaporates as you issue commands to familiar WWII-type troops and equipment. Spy satellites and killer satellites prop up the space-technology part of the plot, but it's thin. Why can't you take a look at the planet during your descent, for instance? And since you've obviously achieved interplanetary travel, why are you producing tanks and ships? Thin though it may be, Global Conquest plays fast and furious, and for those of you who got hooked on the old computer game Empire, Global Conquest offers that same addictive attraction of discovering a world while you conquer it.

PAST PERFECT

Holing up in some bunker commanding troops around the globe gets tiresome. A true general will eventually long for the field tent and the smell of napalm in the morning. Besides, you miss the personal contact with your soldiers — even if only to slap one in a hospital somewhere.

About a year old, **The Perfect General** from QQP has enjoyed tremendous success. With the additional popularity of an add-on **WWII Battle Set** scenario disk, it's clear that PC gaming harbors a lot of would-be generals who just won't settle for excellence: We're looking for perfection.

In The Perfect General, you're faced with a one-goal tactical mission and a limited amount of equipment, placement options, and time in which to complete the mission successfully. Take the hill, the town, the port — hell, take what you can, and never ask why. That worry is left for the global-strategy players in Command HQ and Global Conquest.

A common-sense equipment pool lets you pick from heavy, light, and mobile artillery; heavy, medium, and light tanks; and armored cars, infantry, and bazookas. The heavier the unit, the more firepower and defensive capabilities and the smaller the movement allowance.

Outfitting your troops may be more than half the job, and careful study of the mission may rule out certain units. As powerful as they are, heavy tanks are useless in dense jungle. Pay attention to your starting area, and note where victory points lie to get a gauge on the best equipment.

Don't forget to take along a few grunts. They're cheap, and necessary to garrison the towns while your mobile forces move deeper into enemy territory.

Tanks are the heart and soul of this WWII-era ground campaign. There are no ships or planes, and the fighting sometimes resembles a motorized dirt-clod fight. From the game options, you can even tailor the scoring. Setting up a game with *complete destruction* and *always hit when in range*, for instance, turns The Perfect General into a chess-like strategy game.

Colorful screens provide a pleasing background for these units. Only the infantry and bazookas are flag icons. Tanks, artillery, and armored cars have a slightly cartoon-like reality to them, as they make motor sounds as they move. Soldiers may ride motorized units to the front, but if the armor is hit, so are the men. As the attacker, keep moving. Remember that the towns contain the victory points, not the body count. The perfect general will cut no bloody swath on the way to victory. Even Sherman admitted that only about 20 percent of his March to the Sea was of military consequence. (I guess he just liked to shoot dogs.) Some scenarios will contain neutral territory. Violating neutrality forces the area to embrace your enemy; avoid it whenever possible.

One highlight is the game's match-play option. Pick a scenario, take the attacker's side, then do your best. A highly refined scoring system rates your performance. When the game is over, you switch sides. Can you win in both cases?

Two-player (humans) mode provides the most fun, even if the computer is a better player. Beating the machine can taste a little hollow, sort of like beating Data or Spock from *Star Trek*: very challenging, but very intellectual. Only with a human enemy can you taste virtual blood.

WIZARDS, TO THE RIGHT, MARCH!

The last challenge for would-be generals comes from Mindcraft, and while it tests all the same leadership abilities, **Siege** is anything but familiar.

A game of castle overthrow and defense, Siege offers archers and catapults, not tanks and bazookas. Instead of Iwo Jima or Italy, you'll be fighting in the land of Gurtex.

Based on Mindcraft's popular role-playing series Magic Candle, Siege is pure, straight-ahead war gaming. Another real-time game, it leaves few idle moments for surveying the situation. As in other strategy games, you must assign troops appropriate for the task. It's just that these are no ordinary troops. Besides archers and swordsmen, the land of Gurtex is populated with elves, giant spiders, and blue and purple wizards.

Many scenarios are available, all set before the time of the Magic Candle games, and all featuring individual challenges. Entertaining graphics images portray the inhabitants of this fantasy land and their castles.

Bridging moats requires engineers. So does operating catapults, siege towers, and battering rams. From inside the castle, engineers can dump boiling oil on the enemy as they scale the walls (my favorite). It may take time to get used to the talents of the various troop types in this game, but once you do, many of the same tasks await you in Siege as in any other strategy war game. A quick tutorial is available if you want to familiarize yourself with this strange land. Further options let you choose difficulty levels and select troops.

For all its fantasy fancy, Siege still challenges your leadership abilities. Don't send a purple wizard into the fray — his powers are for healing damaged troops. And don't underestimate the diminutive elves — their power is considerable.

In terms of graphics, Siege is the most exciting game of the four; it's fun to watch boiling oil cascade down castle walls, or see wizards toss colorful fireballs at their foes. It's worth losing a wizard just to watch him explode in a giant ring of fire and float off into electronic never-never land.

Giant spiders and minotaurs aside, the medieval setting provides fairly realistic castle-siege warfare, and is a good test of your leadership abilities. After a particularly bloody exchange, the battleground's clogged with bodies. A built-in corpse management program even removes the dead from the playing field from time to time. (I know, it's gruesome.)

Careful scrutiny is required for a successful campaign. Rest your weary troops in the barracks — but don't forget them. Like most soldiers, they're content to hang around the bivouac until ordered to move out. Likewise with your injured: You must send them to the hospital until they recover. Once recovered, however, these soldiers will go to their barracks. Command scout troops to patrol, or archers to defend, but check on them frequently. You court disaster when you push a patrol past the time when they should have rested and recuperated.

Siege definitely tests your medieval military strategy and tactics, and as far-out as some of its units appear, the game provides a good look at castle siege and defense. It would take Patton by surprise to find himself commanding a group of wizards or elves, but after he rolled up his sleeves, he'd find many of the same tasks facing him here as in the real-world Sicilian or French campaign.

GOT A GENERAL IN YA?

Here are four war games that really test your mettle. Whether you go for the tactical-level WWII simulation of The Perfect General, the global challenges of Command HQ and Global Conquest, or the elf-infested medieval melée of Siege, you're the general.

In the end, the mark of a great general is his or her ability to learn lessons — and learn them quickly. It's no surprise, then, that one mark of a great war game is that it accommodates you as you improve. Each of these games offers ranked difficulty levels and game options to provide an even match for a long time.

As the highest-ranking officer, you shoulder all the responsibility and reap the whirlwind of defeat or the ecstasy of glory. But, as Sherman said, war is hell. Don't expect these computer conflicts to let you off the hook without some substantial sweat.

There's power in boldness. Make your orders clear and stick to your guns. Some soldiers may grumble, but they'll move out once you've inspired them. There's a warrior in each of us — but is there a general? ❑

PRODUCT INFORMATION

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Microplay
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EGA
mouse recommended

Global Conquest
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The Perfect General
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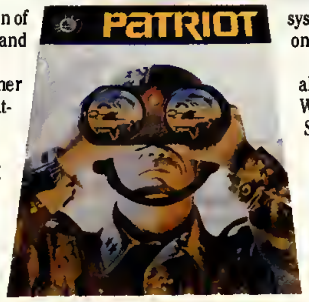

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THREE-SIXTY

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Kid Games

A PERFECT PLAYGROUND

Fun and education aren't mutually exclusive: Good learning games let kids build skills and knowledge effortlessly.

By Heidi E. H. Aycock Illustration • Richard McNeel

Good teachers know that kids learn best when they're having fun. Some even may suspect that more would get done if the kids could spend all day on the playground instead of strapped into their seats with the shades pulled down tight. But teachers also know that the trick is to keep the fun from scrambling the educational message.

How best to balance fun with learning? Game developers say that fun should be absorbing. The ideal, they say, is a lesson that's as engrossing as a well-plotted journey through a fantasy land. If kids can become so immersed in an exercise that hours pass by unnoticed, they'll build skills and absorb information almost effortlessly. Fun and education aren't mutually exclusive.

Most game developers have mastered the art of motivation. Score keeping, taunting opponents, and progressive levels hold a player's interest, even in drill-and-practice exercises. But it's only lately that designers have managed to wrap this motivation in an engaging presentation. While PC educational packages were still displaying character-based graphics, entertainment products were flexing their visual and audio muscles. Only when educational programs began courting entertainment strategies did learning software grow from an ugly duckling into a beautiful swan.

Four new children's titles offer both good and bad examples of how entertainment and education mingle. **Reader Rabbit's Ready for Letters** testifies loudly and clearly to the fun aspects of learning. **Snoopy's Game Club** and **The Secret Island of Dr. Quandary** disguise lessons under a wrapping of entertainment. But **Facts in Action** garbles the educational message with its particular entertainment tactics.

LISTEN TO YOUR ELDERS

Put yourself in a preschooler's shoes and travel with Reader Rabbit to his grandparents' house. Kids find a different exercise in each room.

SCHOOL
ROLE PLAY
FUN AND
JOYSTICK
MS-DOS
VIRTUAL REALITY
JOYSTICK

In the basement, Grandpa's working at his tool bench. He holds up a shape and you must find a matching shape among the tools and scraps of wood. In the parlor, thumb through a photo album and put people in their proper places in the pictures. By clicking on anything in the guest room, you switch the decor from *ABC Bears* to *Rough-and-Tumble Football*. And, by matching letters on the bathroom wall, you can paint the tile with colorful pictures. If all this work makes you hungry, find Grandma in the kitchen. She needs your help, so you must rummage through the cabinets and refrigerator looking for all sorts of ingredients.

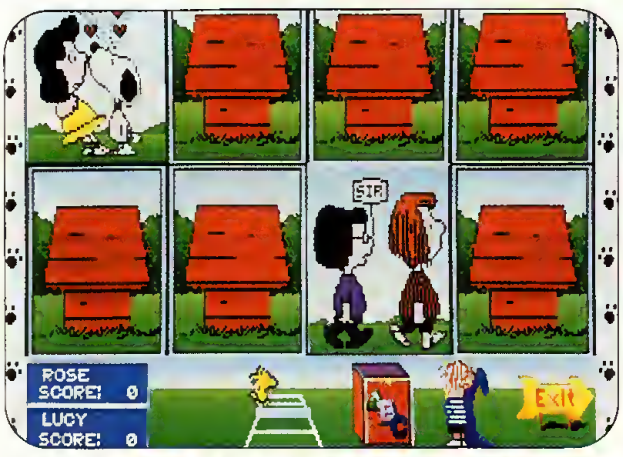
These more-formal exercises are complemented by some free exploration scattered throughout the game, such as a hidden orchestra by the pond and a train that runs by your grandparents' yard. You can click just about anywhere and find an animal playing a musical instrument. If you find all the animals, Reader Rabbit pops up to conduct the orchestra. Besides teaching the concept of cause-and-effect, these aspects of Ready for Letters create opportunities for parent/child discussion. The manual suggests some possibilities, calling them "lap chats," but you'll think of many more.

The Learning Company has come up with other ways to use entertaining elements to enhance the educational experience. Ready for Letters' sound, for instance, adds another sense to the learning environment. The background music makes the software more attractive, and, to the extent that the music makes Ready for Letters more engaging, it does a better job of educating.

With digitized speech, however, very young children also can use the package, because a voice, rather than text, directs them. The spoken word also forms a bridge between language as it's heard and language as it's read. The spoken instructions are particularly valuable in Grandma's kitchen as she asks for ingredients, as well as in both the bathroom, where a voice instructs you to click on a certain letter, and the parlor, where a voice tells you where people belong in the photos. These exercises would be nearly impossible for non-readers if it weren't for the digitized voice, but, with speech, they help turn non-readers into pre-readers.

Besides sound, well-drawn graphics and smooth animation combine to make Ready for Letters an engaging visual experience. Reader Rabbit is lively and all the characters are enriched by personal quirks and friendly gestures.

By weaving entertainment techniques with educational elements, The Learning Company has produced a package to which children will return. Each time, they'll develop new skills or sharpen old ones. And they'll always have fun.



Snoopy's Game Club: a Peanuts special you play over and over.

IT'S ALIVE!

Besides creating absorbing, lesson-packed software, publishers strive for relevant and timely educational titles. These are the companies that can crank out hits reliably. Accolade has achieved this goal with Snoopy's Game Club. The program combines lessons in spatial relationships, pattern recognition, and memory with the familiar characters from the *Peanuts* comic strip.

Pretend you're a kid between 3 and 8 years old — you'll likely dive into this game just to see what Woodstock and Snoopy are going to do next. They dance through an animated jigsaw puzzle, hide behind cards in a *Concentration*-style game, and frolic through scenes in which two objects are alike and the rest are impostors.

The most impressive of the three games is the animated jigsaw puzzle. Even after the picture is shuffled into a jumble of squares, Snoopy and Woodstock continue moving through the scene. They roam willy-nilly around the screen, depending on where their proper squares are at the time. If you're clever, you can use the moving characters as hints to place the pieces properly. Besides developing spatial skills, this puzzle also teaches sequencing.

The other puzzles aren't as impressive, but they're still educational. In the *Concentration*-style game, you click on cards and look for pairs. The pictures show the Peanuts characters in all kinds of settings — Snoopy dressed as Santa, Charlie Brown at the beach, Linus with his blanket, and so on. Game options let kids play by themselves or against an opponent. For the youngest players, you can show all the cards face up so they'll learn visual recognition without having to use advanced memory skills at the same time. Although this game is nowhere near as technically innovative as the jigsaw puzzle, it does teach important skills as it adjusts to each player's abilities. These characteristics are as important as the fascinating presentation of the jigsaw puzzle, if not more so.

The third game, a matching exercise, resembles something out of a child's activity book. You see several objects on screen and you must choose the twins. In the early stages of the game, you select from four or five objects. As you improve, however, the screen displays more objects. Although it's based on a simple

Facts in Action doesn't quite make the grade.

Thinking skills lead you through Dr. Quandary's adventure.

concept, it's not an easy game: It demands that players focus their attention for long, quiet periods. Although this activity isn't ideal for the PC — kids can do the same thing on paper, at much less expense — Snoopy's Game Club integrates it admirably. It complements the other games by operating at a different pace, and, like the others, increases in complexity as you improve.

When you play Snoopy's Game Club, you'll feel as though you're watching a *Peanuts* cartoon. Although the graphics and animation are good, the music is the real star. The tunes sound so much like a *Peanuts* special you'll wonder which holiday is next.

Although Ready for Letters develops skills more obviously associated with education, Snoopy's Game Club develops equally important ones. Without analytical skills such as the ones taught by this package, children can't progress independently in traditional school subjects.

JUST THE FACTS, KIDDO

Aiming at more formal areas of learning, Spirit of Discovery has recently released Facts in Action, a package that's equal parts trivia contest and *Concentration*; it covers basic science, world history, prehistoric animals, and Spanish.

At the beginner level, Facts in Action lays out 25 picture tiles, each representing a fact. One tile, for instance, shows human lungs, while another shows a picture of Albert Einstein. Once the software deals the tiles, the voice of Tyler, your young host, instructs you to find the graphic that represents a particular fact — the picture of the brain, for example. That's pretty simple, because all tiles are face up. The trick in Facts in Action is to associate the picture with the word. Whenever you pick the right item, Tyler praises you and tells you more about that tile.

The intermediate level challenges you to memorize the location of the tiles as well as what they represent. The program gives you a few moments to study the layout of the tiles, then turns them over. The advanced level works similarly, but includes 50 tiles in two layers.

The company has used entertaining sound and graphics to make drill-and-practice lessons more attractive. But Facts in Action is a good idea applied to the wrong topics. Matching symbols is one thing, but associating history and science? In its defense, Spirit of Discovery says that Facts in Action is designed to stimulate interest in various subjects — not to replace the benefits of reading and study, but to whet your appetite to learn more.

On the other hand, foreign languages are perfect candidates for this approach. To learn Spanish, for example, you should try to associate each word with the object, action, or concept it represents rather than translating the word into English. Facts in Action reinforces this learning style. Tyler asks you to find *pelota*, for example, and you look for the picture of the ball — not the word *ball*, but its image. If the program designers had devoted themselves solely to this category, they could have produced a much better package.

Regardless of the subject covered, however, the company made some poor choices in every area. First and most importantly, Tyler's voice, as heard through a Sound Blaster Pro audio card, is unclear and rough. At its best, this speech feature sets Facts in Action apart from other educational programs. Unfortunately, it's rarely at its best.

A second problem is poor editing. The program tosses myths and legends in with facts in its *World History* section: King Arthur pulling Excalibur from a stone, and the story of Noah's ark are but two samples. The historical truth of these events is questionable, and it's misleading to include them. Many of the representative pictures — such as the image of George Washington chopping down a cherry tree — are just as misleading. At best that's an insignificant symbol to associate with the first President. At worst, it represents an apocryphal story that never really happened. Spirit of Discovery needs to sharpen the program's educational content.

Several other problems mar this package — such as a narrator with a whiny voice and a small repertoire of comments, a cursor that freezes every time the narrator speaks, scattered cases of badly drawn graphics and amateurish animation — but its

biggest problem is that it expends energy in the wrong places.

THE DOC'S IN FINE FORM

Speaking of wrong places . . . . If you're 8 years old or older, you can tangle with Dr. Quandary, a carnival barker who traps you in the body of a kewpie doll. To escape, you must solve several puzzles he's set on his secret island. Sounds like too much fun for an educational package, doesn't it?

On the contrary, this program stuffs a digital playground onto two 5.25-inch floppies. Although Dr. Quandary teaches different skills from those found in Facts in Action, it's a good example of the way game design can make intellectual exercises more engaging. This MECC package uses the style of an adventure game to lead you through exercises in reasoning, logic, and spatial relations. By setting the lessons against a well-drawn VGA background with accompanying music, Dr. Quandry's designers have produced an attractive package.

From the moment you set foot on Dr. Quandary's island, you'll have to tangle with puzzles. An enchanted prisoner knows the combination to the lock on his chains, but he can't tell you the numbers — you must guess instead. All he can do is wink if you've guessed a correct number and smile if you've guessed the number in the correct position. With ten tries and a little cooperation, you should have the poor man free in no time.

Your progress through the island is blocked by more mind-bogglers. Several *Tangrams* stand in your way. To solve a Tangram, you use small shapes to reproduce a larger shape. It sounds easier than it is. In *Junkyard*, a Tower of Hanoi-style game, you move a stack of tires, one at a time, from one pole to another.

The most fascinating problem pits your thinking skills against a giant frog, a pterodactyl, and an oversized fly. Armed with a catapult, a pile of rocks, and a bucket of popcorn, you must figure out how to feed the frog, placate the pterodactyl, and gather the frog's eggs. While the other puzzles are more familiar — even old hat — they're still entertaining and mind stretching. Each of Dr. Quandary's challenges is interesting on its own, but you'll be more motivated to find solutions because you're working toward your ultimate freedom.

Programs such as The Secret Island of Dr. Quandary (and Snoopy's Game Club for younger kids) offer puzzles, but do the dirty work of coming up with the answer sheet. Dr. Quandary doesn't give away his answers for free, though. Even the help screens, which list instructions for the puzzles, don't offer much information. In the catapult puzzle, for instance, the help screen says, "Feed the frog and get the frog eggs." Your brain will squirm like a toad, but when you figure out the answer, you'll smile as broadly as if you had finished a traditional adventure game in record time.

NEXT GENERATION

Educational programs and entertainment software can look forward to a long and happy relationship. Each genre has much to offer the other.

As storage space grows larger and cheaper, computer programs will be able to offer more answers. And when artificial intelligence becomes possible in commercial and consumer applications, computers may even be able to evaluate how you made a decision.

Assuming virtual reality gets real, there's also the long-range possibility of involving more senses in a computerized learning experience. Not only will you hear Reader Rabbit's grandmother ask for butter, but you'll feel her put her hand gently on your shoulder as she speaks.

For now, the most difficult challenge for any education or "edutainment" title is how to cope with a question that has no single, right-or-wrong answer. Software that can deal with this problem, such as Ready for Letters, encourages you to explore and experiment.

There may be a scoreboard, but there are no bad scores. In fact, if they're high because you're doing things right, you won't even look at your scores. You'll be having way too much fun. ❑

PRODUCT INFORMATION

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Reader Rabbit's Ready for Letters
The Learning Company
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Fremont, CA 94555
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$59.95
640K IBM PC, Tandy, or compatible
MS-DOS 2.0 or later
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Secret Island of Dr. Quandary
MECC
6160 Summit Drive North
Minneapolis, MN 55430-4003
(800) 685-6332
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VGA, MCGA
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IT'S ALIVE!

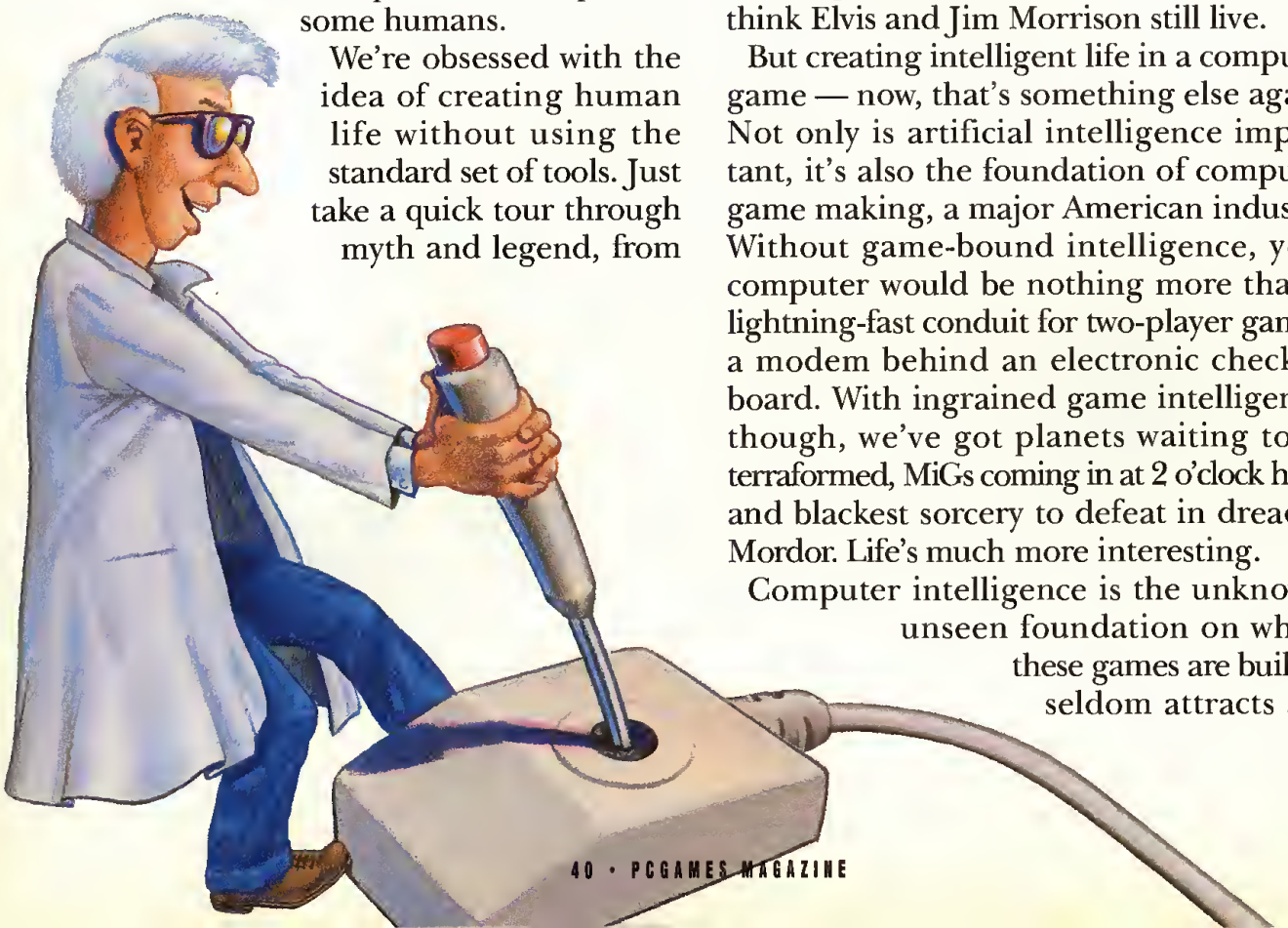
It's the dawn of a new computer-entertainment age — faster systems, more-sophisticated digital play, the cutting edge of the art and science of artificial intelligence.

By Barry Brenesal Illustration • John Berg

Victor Frankenstein pieced together his artificial creation with parts scavenged from the grave, and crowed that science, too, not just God, could create life. Was it any surprise when his man went wrong?

HAL, the intelligent computer in *2001: A Space Odyssey*, was just as artificial, and just as monstrous. No one was shocked when HAL went off the deep end and deep-sixed some humans.

We're obsessed with the idea of creating human life without using the standard set of tools. Just take a quick tour through myth and legend, from the ancient Greek story of Pygmalion to the medieval Jewish folklore surrounding a creature known as the *golem*. Pygmalion, the golem, and Frankenstein were only allegorical characters, though, intended to present symbolic truths. The message? *Don't mess with the natural order.* Fortunately, no one believed in such fiction, except perhaps the long-dead ancestors of Americans who think Elvis and Jim Morrison still live.



But creating intelligent life in a computer game — now, that's something else again. Not only is artificial intelligence important, it's also the foundation of computer game making, a major American industry. Without game-bound intelligence, your computer would be nothing more than a lightning-fast conduit for two-player games, a modem behind an electronic checkerboard. With ingrained game intelligence, though, we've got planets waiting to be terraformed, MiGs coming in at 2 o'clock high, and blackest sorcery to defeat in dreaded Mordor. Life's much more interesting.

Computer intelligence is the unknown, unseen foundation on which these games are built. It seldom attracts any

BERG

attention, but then, that's as it should be. As soon as you become aware of "the man behind the curtain" — to quote Frank Baum's *Wizard of Oz* — the magic stops being magical. If everything's working right, you should never notice the code that guides the troll, chuckling as he swings his meat tenderizer.

But just how does that troll do the voodoo that he do so well? What are the mechanics he employs to parry your blows — to anticipate your response, his fatigue, and the way the wind blows? Artificial intelligence, that's how. All we can hope is that it doesn't rise up and slay us in our sleep.

OKAY — LET'S SEE ITS SAT SCORE

Artificial intelligence (AI) is a term often used to mean any computer intelligence, but it has a much more specific definition. AI started in the 1950s and '60s as an attempt to simulate the characteristics of human intelligence on a computer. "They promised the world," Chris Crawford (designer of many games, including **Balance of Power** and **Patton Strikes Back**) says scornfully. "Pattern recognition. Self-correction. Environment adaptation. Human reasoning. It was much more than they could deliver."

"Artificial intelligence," ponders Don Harlow, of Spectrum HoloByte's Simulations Group. "Humanity hasn't even managed to figure out what human intelligence is yet." Outside of a small group of fanatical devotees, these attitudes toward AI are fairly standard. True, AI has made significant strides since those early days of proud, earth-sweeping statements, but it still remains largely a field of promise rather than accomplishment.

That contrasts with an entirely different study: *artificial life* (AL), which is what most people really mean when they use the phrase *artificial intelligence*. "AI is a top-down approach that tries to model the human mind," says Will Wright, one of the guiding forces behind Maxis Software and its line of simulations. "It hasn't lived up to expectations. But we've discovered something interesting in the meantime — that if you simulate ecosystems by creating an appropriate series of rules, the creatures in that ecosystem appear to act intelligently. Their behavior even appears to evolve. It's a bottom-up approach. Intelligence isn't hard-coded into the directive. With AL, it arises naturally from the system."

The first major success for AL was the MANIAC computer, the machine that beat a human chess player in 1956. MANIAC definitely wasn't alive; it actually played poorly. But it did something extremely valuable in the long run: MANIAC removed the need for a living, human opponent. The world of mass-marketed opponents-in-a-box was a possibility from that moment on, awaiting only the availability of affordable home computers.

But although the computerized opponent/referee became possible once these behind-the-scenes rules were discovered and applied, the results didn't bring a rush of adrenaline to any player's bloodstream. Simply put, those early computer games were dull. It would take more-sophisticated visual and audio elements, not to mention faster machines and larger hard drives, to make today's amazing crop of gaming environments possible.

Even more importantly, it would require original thinking from game programmers. They were expected, suddenly, to produce code that would go where no code had gone before, creating games that in fact camouflaged your computer's existence. Developers tried all sorts of tricks and came up with these different approaches:

• **Mimic reality**. Darren Stinnett is project manager for Spectrum HoloByte's **Falcon 3.0**. "We hate the fact that most jet-fighter simulators cheat, knowing where your plane is all the time," he says. "It keeps your computerized opponent from acting in a true-to-life manner. They just try to get directly behind you in the shortest route possible, and fire." Dynamix's Damon Slye (**Red Baron**, **Aces of the Pacific**) agrees: "One of the hardest parts, believe it or not, is getting our computerized pilots to fly the planes correctly. They don't just cheat and make the plane go where they want to, and those old aircraft are cantankerous. For someone who plays it for a while, that gives you the feeling that it really is working right."

• **Soft-pedal reality, go for fun**. "You can really get wrapped up in the design of background stuff," says Jon van Caneghem, the force behind New World Computing's **Might & Magic** series. "But even in a flight simulation, there has to come a point of exponential addition where all that reality is no longer useful. We once spent two days designing a complex algorithm for a tiny corner of a game. After we'd finished, we realized that six lines of IF/THEN statements would have produced the same results for the player. We'd love to see more-detailed characters through expanded computer intelligence. The problem, with role-playing games especially, is making use of it, and making it fun. Graphics and sound are where we're at today — visual rules, instead of character-oriented ones."

• **Fun is inventing new realities**. Chris Crawford is pleased that new computers run faster and store much more information. He's distinctly less delighted about the way many programmers "have taken yesterday's product and turned up the dial on it. Bigger sprites, more animation, yesterday's ideas — the wrong way to take advantage of increased power. We should be asking ourselves, 'What new things are now possible?' " Don Laabs, vice president of research and development for Software Toolworks, is one of the people who has been doing just that: "Our **Chessmaster 3000** includes a natural-language generator, the first of its kind in this software. It consults the engine to get moves and responses, analyzes the board for important tactical situations, and then generates a message with all topics prioritized. We've also designed multiple rule sets, letting you change the computer opponent's playing personality. It's all part of adapting computer intelligence to play more like humans."

• **All of the above**. Sir-Tech Software's most recent addition to the **Wizardry** series, **Crusaders of the Dark**

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Savant, follows all three paths outlined so far. It adds to apparent reality with a sun and moon that cross the heavens, and varied, well-defined landscape backgrounds. Graphics images have moved from EGA to VGA, and there's a distinctive music track, which may be the best of its kind this year. Most innovative of all is the intelligence that drives each of Crusaders' typically exotic alien races. "Everyone you meet has a pre-defined personality, with long memories of what occurs to them," says series producer David Bradley. "They relate to each other, negatively and positively, and opinions shift as the balance of alliances and betrayals alters. They may also hear of certain activities you perform that will color their future dealings with you. No two games are alike, and any one of the alien adventure teams in Crusaders could well win the entire game ahead of you."

• **None of the above**. Finally, somewhat to one side (actually two sides down and on the left) you'll find titles that turn computer gaming on its ear. They emphasize the presence of AI rules, rather than hide them. They remove the computer opponent, and instead place you in competition with your own best score. They still use color, sound, and animation, but only to heighten the product's attractiveness — not to suspend disbelief. Maxis Software concentrates its efforts here, with simulations such as **SimCity**, **SimEarth**, **SimAnt**, and **SimLife** to its credit. Millennium has produced a visually exciting cross between SimCity and SimEarth, called **Global Effect** (distributed by Electronic Arts). And there's a SimCity-like simulation set in the science-fiction universe of **Dune** scheduled for release by Virgin. But the most interesting development comes from the University of Chicago, where an AI is being designed to create and maintain an effective SimCity city: a program building a program. The possibilities for self-repairing circuitry and adaptive code are right there — lined up directly behind a PC game you can play at home.

HUMANITY, THE FINAL FRONTIER

"You'd better do a damned good job with a simulation's AI if someone has tried it before," says Andy Hollis, who produced MicroProse's **Hyperspeed**. "That's what makes human interaction in a simulation much harder to create than in a jet fighter. Few people have flown jet fighters. All of us know what it's really like to carry on different kinds of conversations. You can't fake human interaction well."

And that explains in large part why there are so many jet-fighter simulations and so few games that include human interaction (as opposed to images giving orders). It's easier to believe in the reality of a process you've never performed than to believe a mediocre imitation of something even vaguely familiar.

ARTIFICIAL INTELLIGENCE

It's no wonder, then, that companies avoid human simulations in favor of the things computers do well, such as split-second calculations, mathematical plotting, and informational tracking. Yet the rewards are considerable. Invent a game that features human interaction and you stand almost alone, your project judged in high relief. Invent an excellent jet-fighter simulation, and you go up against a squadron of competitors.

So how do you go about giving a truly human face to your gaming intelligence? Some companies have found a way through the impasse by simulating human *situations* rather than interactions. It's much easier to design a game in which, for instance, campesinos revolt and you respond with any of five options than it is to negotiate one-on-one with a campesino spokesperson.

D.C. True's new **Shadow President** is an excellent example of this approach. You control U.S. foreign policy with more than 150 separate nations and nearly 30 assorted actions. To make matters more realistic, there are 300 variables per nation, based in large part on the *CIA Book of Facts*. With 30,000 variables in all, the absence of direct one-on-one interaction goes unnoticed, and the AI-governed situations are uncannily accurate.

In fact, Shadow President predicted the coalitions that formed to create Operation Desert Storm. D.C. True's Robin Antonick says the company "wanted to create an environment in which you could experiment with a truly realistic model. There's no 'tree plot' in Shadow President — no dead-end branches — and no decisions are 'wrong.' But if you decide to drop atomic bombs on China, you can expect a full-scale war, with all the economic, cultural, and personal tragedy that entails."

But don't stop there. Let's take things beyond 300 variables per country. Dr. Vladimir Pokhilko, cognitive psychologist and game designer, has developed a computerized model of human intelligence that encompasses nearly 2100 personality traits. "With it, we can create a computer opponent whose reactions alter toward you as game play progresses in very complex ways," he explains. "Computer games are on the cutting edge of many important technologies, AI among them." With faster systems and more-sophisticated computerized players, we may be seeing the dawn of a new gaming age, where mental responses have to be as sharp as physical responses were for the arcade hits of a decade ago.

One thing is certain, though. It won't be a new "Golden Age" for computer games. Because computer-game development has moved so quickly and continuously, the last Golden Age never really ended. Computerized intelligence isn't a leap forward; it's just another step toward the day when you raise your hands to the heavens and cry, like Victor Frankenstein, "It's alive!" ❑

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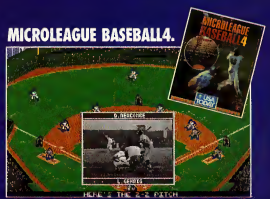

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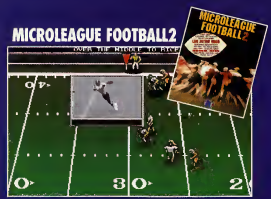

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WOLFENSTEIN 3-D

By Peter Olafson

Wolfenstein 3-D, a WWII shoot-'em-up, is drop-dead gorgeous.

Castle Wolfenstein is one of the graybeards among computer games. Even way back in 1981, this escape-the-fortress shoot-'em-up was a classic. Fast action and the novelty of hearing an Apple II's speaker squeak *"Achtung"* was enough to keep you glued to the screen for hours.

Eleven years later you can be captivated all over again. Id Software has taken the Wolfenstein frame and built a wonderful first-person, three-dimensional action game around it. Wolfenstein 3-D is drop-dead gorgeous, outrageous to the ear, stay-up-all-night addictive, and easily the best action game available for the IBM.

ACHTUNG, BABY

Wolfenstein 3-D is, in essence, Ultima Underworld reborn as a blisteringly fast World War II shoot-'em-up. It sports a series of vast ten-level mazes populated by guards, German shepherds, officers, SS troopers, zombies, floating Hitler surrogates, and even less-savory characters — all armed to the teeth, smart enough to seek you out, and painfully eager to relieve you of your pitiful life.

This dangerous passage opens with a guard dead on your cell floor and you freshly armed with a pistol. As you explore your prison and redecorate the floor with corpses (which remain in place — a novelty in itself), you'll collect weapons, ammo, first-aid kits, chicken dinners, even dog food to restore health, and treasure to boost your point total. There's a splendid variety of surroundings, such as scene-setting wall tiles, skeletal prisoners in cages, piles of human detritus, pot-bellied stoves, and potted palms — even a bathroom sink. And the bad guys still say *"Achtung,"* though with the help of a Sound Blaster board, they say it right in your ear. The closer they are, the louder they are.

At the end of each level, you see the numbers — percentage of enemies sent to Valhalla, treasure scooped up, and secret areas uncovered. And in the best Super Mario tradition, every level has a number of hidden areas packed with goodies. Each of the six episodes even has a secret tenth level.

Still not convinced? Get this. You can try Wolfenstein 3-D before you buy. The first episode is shareware, widely available from electronic bulletin boards and disk distributors. The full game — an audio-enhanced shareware episode along with two more — can only be had direct from Apogee. (Moreover, three "prequel" episodes are available either separately or together with episodes 1, 2, and 3.) And when hunting up the shareware Wolfenstein, you may find more than just the game proper. A budding support library exists — mapping programs that smooth your path and editors that insert new tile sets when you tire of swastikas.

No wonder players are so passionate. Wolfenstein 3-D draws out the full range of emotions. There's the mixture of expectation and awe as a solid-looking segment of wall yields to probing, and recedes with the clank and whir of invisible machinery. There's unalloyed terror when, from a region you're sure you've already liberated, you hear the distant clanking of opening doors.

And there will invariably come a moment when, nearly victorious in a fire fight, you see the screen suddenly speckled with red pixels — and the perspective wheels toward the source of the fatal shot as some rogue soldier takes you from behind.

Wolfenstein 3-D is an arcade shoot-'em-up, of course, but it's the very best kind of shoot-'em-up. There's

nothing more dementedly enjoyable than opening up with your chain gun — the most advanced of the four weapons available — on a roomful of Nazi stooges.

But resource management (short on ammo and life, can you risk taking on those three SS guards in the next room?) and pure exploration (getting into those damnable look-but-don't-touch areas) also play a role. And once you've mastered the mechanics, you can race against the clock.

Are there problems? Well, it was a struggle to find one. Compared to some recent releases, this game is remarkably bug free. The peerless scrolling was sometimes a bit jerky soon after startup, even though the game played on a 486/33. There seems to be a ceiling on the number of objects you can display on the floor, and in a couple of spots you may see them wink out. The *quick load* and *quick save* options are a nice touch, but they should be separated by a few keys; as it is, it's too easy to save accidentally when you really want to restore. Finally, the pinball-style idea of accumulating an extra "life" for each 20,000 points doesn't quite work here, because you can save your progress at any point. With up to ten saved-game positions, there's no reason to ever lose a life in Wolfenstein 3-D.

For sensitive souls and young children, there is reason for caution. Wolfenstein rates itself PC-13 for *Profound Carnage*, and recommends that kids under 12 stay away. Guards writhe when machine gunned. They go down with helmets and blood flying and a variety of splendidly blood-curdling digitized screams. When you finally manage to outwit or outgun a "boss," the game replays his death automatically, complete with a closeup "DeathCam" replay of buckets of blood.

But it's also clearly a cartoonish shoot-'em-up arcade game, rather than a fully interactive environment with the pretense of reality. The game has an over-the-top, Itchy & Scratchy quality to it, and there's a sublime sense of the ridiculous at work here. (Wait 'til you see Hitler's getup in episode 3.)

I felt a twinge only when, in one segment of episode 4, I had to mow down close to a dozen guard dogs. But it wasn't such a big twinge that it kept me from chowing down on their dog food.

Id Software/Apogee, P.O. Box 476389, Garland, TX 75047, (800) 426-3123; IBM PC or compatible, 286 or faster, 640K RAM; VGA; supports AdLib, Sound Blaster, Sound Source; requires hard drive or 1.44MB floppy; $35 first trilogy, $20 three prequels, $50 all six episodes

SHERLOCK HOLMES, CONSULTING DETECTIVE

By Peter Olafson

If the game's afoot, as the world's most famous fictional sleuth was apt to say, then Sherlock Holmes, Consulting Detective is a foot, leg, torso, and head. In fact, it's an entire delectable corpus.

This massive opus from ICOM Simulations, designed with CD-ROM in mind, is as delightful an introduction to the pleasures of laser gaming as you're likely to find.

This Sherlock Holmes, like the Conan Doyle character, reeks of class and good breeding. It opens to scenery and princely music that could easily find a home heralding a BBC drama. A book opens slowly on a ray-traced table. Within, by virtue of point-and-click, spoken instructions and a guide to potentially helpful characters make their appearance. And then, Watson, the game's afoot.

PC DINNER THEATER

At Consulting Detective's heart is a basic follow-the-names detective game of the style embraced by Access Software in its Mean Street and Martian Memorandum titles. Like those notable mysteries, Sherlock stresses careful attention to conversations and the people and places referred to in them. One leads to another, and that to two more, and before you know it you've built yourself a nice little puzzle that may point in any of several directions. That's Consulting Detective's strength — the player provides the part that makes it work. It makes you think. It makes you *deduce*.

How to manage this? Elementary (my dear Watson). You click on eight icons that bracket a map of central London. From here, you can check eight two-page issues of *The Times*

Sherlock Holmes, Consulting Detective looks like an edited movie cut.

for clues (though it's more convenient to use the hardcopy replicas that come with the game), summon dozens of names from Holmes' London directory (and port them over into his notebook for easier reference), consult the characters' background files, dispatch the Baker Street Irregulars to check them out (and get a telegram back with the results), or pay them a personal visit.

If someone's home, you're in for a splendid treat. A video pops up at center screen, with VCR-style controls beneath, and plays out the ensuing scene in full (if rather dusky) color, full (if rather limited) motion, and backed by a crystal-clear digitized soundtrack.

You've probably seen pictures of people watching TV in the corner of a monitor screen while pretending to use a Windows application. Sherlock's similar. Consulting Detective's images aren't quite broadcast quality — shiny surfaces such as Dr. Watson's head and a suspect's cleavage produce hot spots here and there — but the effect is extraordinary and the impression lasting. They run at just 15 frames per second, but you'd never guess, as most of the action is in set-piece scenes, with movement of little more than heads and hands.

It doesn't end here, mate. If you're after records instead of a tobacco-and-sherry sit-down, you'll see the steamship's passenger list or the will you've been seeking in that little screen. These sketches also illustrate the speeches of many characters. And if you're dining on red herring tonight, you may see a sketch of a closed house or a front door bearing a note, meaning you've wasted your time (and that Holmes, who's intolerant of dawdling and other diversions, is likely to say something snotty).

When you think you've made the necessary connections, you'll take the case to court to be quizzed on whodunit and why you think so, witness Holmes' classic dénouement, and finally see your score compared to the master detective's.

It can be downright absorbing stuff, and it may not even occur to you for a while that there are three complete adventures here — *The Mummy's Curse*, *The Mystified Murderess*, and *The Tin Soldier* — each with its own elaborate cast of characters, acted scenes, and soundtracks.

The acting in the clips is rather broad and stylized, to be sure, but it's as good as, say, a decent dinner-theater production. Some of it — the off-his-chump newspaper reporter in *Mummy's Curse*, for instance — is notably better. That sounds like a backhanded compliment until you realize that acting in digital productions typically reaches only the *Bugs Bunny* level.

DO IT HOLMES' WAY

As enjoyable and technically impressive as all this may be, Consulting Detective could be more of a game. It occupies nearly 376 megabytes on the compact disc, but feels far smaller than, say, Electronic Arts' disk-based Lost Files of Sherlock Holmes, a graphics adventure that weighs in at just 28 megabytes.

While all this ear-and-eye tinsel is enchanting, it's still tinsel. Sherlock Holmes, Consulting Detective is more like an edited cut of a movie than anything. The cumulative effect is rather like playing a speedy, glamorous version of one of those VCR games that surfaced in the 1980s.

For one thing, there's no evolution within this game. The world is fixed in place for you to find it, and your Holmes and Watson are the only ones in motion. People who aren't home when you first visit never do return. The man you find at a table with a knife in his back is still slumped over when you revisit the scene 50 carriage trips later. That may be convenient if you need to go back for a missed clue, but isn't that what saved games are for? (This also could have been solved by adding rewind and fast-forward buttons to the VCR interface. You can play the video segments only from the beginning.)

Moreover, those segments are utterly non-interactive. Holmes notices the evidence. Holmes asks the questions. Holmes decides when it's time to take a powder. It might have been nice to let us choose — if not Holmes' lines, then at least the posture or attitude with which he delivers them.

Then again, because these segments are bound to mountains of video and audio, even one set of alternate approaches would have popped the game over the single-CD size. And, at the very least, the game is a foot — in the CD-ROM door.

ICOM Simulations, 648 South Wheeling Road, Wheeling, IL 60090-9950, (800) 877-4266; IBM PC or compatible, 12MHz or faster; 640K RAM; DOS 3.3 or later; VGA; requires CD-ROM drive, 150K data-transfer rate; requires mouse; supports Sound Blaster, MediaVision; $69.95

A-TRAIN

By Wayne Kawamoto

There *is* a light at the end of the tunnel, and it's Maxis' A-Train comin' at ya. Like the golden spike that tied together the transcontinental railway, this first-rate, attractive, and addictive simulation ties together lots of diverse elements.

A-Train sports a steeper learning curve than most games, and the results may be too methodical for some. But there's always something to do: check your progress, watch your trains, evaluate your investments. A bank hands out loans for additional ventures; you can speculate on real estate, and take some risks in a stock market. A-Train is an exercise in miniature digital capitalism.

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apartments, factories, mass-transit systems, and commercial zones. As your city grows, you can add stadiums, amusement parks, ski resorts, even some golf courses. Everything depends on the trains, though.

Eventually, the cities begin to grow. Watch the population boom, trains carry freight, and workers commute to their jobs. If you're successful, you'll have a skyline full of skyscrapers. And, yeah, you'll be filthy rich.

A-Train moves day by day, literally. You must schedule your trains, and find the most-profitable times and lines. With the 24-hour clock running, you'll see trains depart their stations at their appointed times, and freight loading and unloading.

The graphics images in A-Train are richly detailed. Lamps and lights flicker on in the evening — a splendid effect. As months go by, seasons change to match your quarterly reports. There's snow in the winter, green trees in spring and summer, and autumn colors in the fall. Look, too, for migrating birds, along with extras like Santa on Christmas Eve and fireworks over the amusement park on summer nights.

Like other Maxis simulations, such as SimCity and SimAnt, A-Train is an experimental environment. The game has something of a goal — the pursuit of happiness and masses of money — but there's no real threshold for victory. In theme, A-Train is something of a SimCity meets Railroad Tycoon (MicroProse's railroad empire-building simulation). Compared to SimCity, though, A-Train is more comprehensive, and offers more choices and control.

That's why it takes so long to produce results in A-Train. There are so many elements to consider — schedules, track layout, types of trains. The program also generates its own micro-economic environment spiked with random variables — you must be flexible enough to ride out the economic tides.

With SimCity, anyone could have a sizable metropolis in a couple of hours at the lower levels. With A-Train, you need a few days.

In fact, it's this nurtured pastime that makes A-Train such a pleasure to play. Every accomplishment, from the time your railroad shows a profit to when you achieve the next level for your city, makes you feel like a proud parent beaming at Junior's first tooth.

A-Train also includes plenty of things to track. Reports show the profitability of your railroads and property investments, as well as your stocks. A growth report shows how your town and industry are expanding. You'll get to know these reports well as you progress through the game.

The mouse interface is first-rate and easy to use. (Interestingly, A-Train was developed by ArtDink, which also created Railroad Empire some years ago. This is the first Maxis title developed outside the company.)

Although the well-written, comprehensive manual provides a tutorial as well as a reference section, there are some tricky concepts to master.

A main railroad spur goes into and out of the area, bringing passengers and freight. To get this freight — the building materials for your city (you can't build anything without them) — you must create a station near the main spur, so you can load the materials automatically onto your trains. The key here is to be within the correct geographical range, something that's sketchy at first. Also, train scheduling can be confusing. You'll have to consider rail switches, as well as departure times. Once you get the idea, though, you'll have your trains running like clockwork.

In addition to entertaining game play, A-Train complements its bright graphics with a jazzy soundtrack. It's a great game that requires a methodical approach, but it's a pleasure to play. Hop aboard — for those who persevere the rewards are great.

Maxis Software, 2 Theater Square, Orinda, CA 94563-3346, (510) 254-9700; IBM PC or compatible; 640K RAM; Hercules, EGA, VGA, MCGA; supports AdLib, Sound Blaster, Sound Master, Roland, Tandy sound; requires hard disk; $69.95

INDIANA JONES AND THE FATE OF ATLANTIS

By Brad Dixon

Grab your whip, hat, and leather jacket. No, you're not going to dive into the gritty netherworld of some strange, big-city club scene. You're going to team up with your favorite snake- and Nazi-hating archaeologist — Indiana Jones.

Indy's on the VGA monitor this time, not on the silver screen. And he's on another adventure to save the world from those villainous Aryans of the 1930s. It's another quest for truth and justice as the forces of good and evil match wits in the search for the lost city of Atlantis.

Indiana Jones and the Fate of Atlantis is the most recent — and most complex — adventure game to come from LucasArts. It requires nearly 10 megabytes of hard-disk space, and another 50K for each saved game-in-progress. But for all its hard-disk hogging, Indy's worth it. The graphics images are first-rate, the background audio is movie-like, and the plot and characters are intriguing.

HEY, PROFESSOR

LucasArts seemed to have one goal in mind as it designed Indiana Jones and the Fate of Atlantis: playability. The whole idea of this graphics adventure is to simply enjoy it. There are no screaming banshees waiting to lop off your head as you enter a room, no unsuspected traps that force you to save the game continually. Just as Indy plays his hunches on film, you do the same here as you search museums, archeological dig sites, and exotic Mediterranean locations.

The entire verb set and vocabulary are listed at the bottom of the screen, along with the booty you pick up along the way. And while the game plays faster and more easily with a mouse, you can move through this new graphics adventure with your keyboard or a joystick instead.

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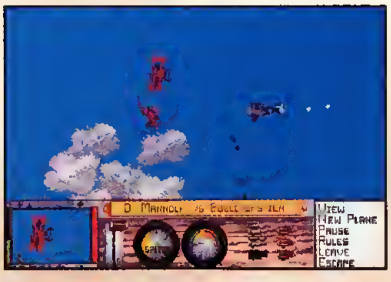

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As usual, Indy isn't alone in his adventure. His sidekick (and thorn in his side) is a former love interest, Sophia Hapgood. Once a promising archaeologist, Sophia has turned psychic and claims to be the voice of Nur-Ab-Sal, the last King of Atlantis. Her psychic gyrations, slashing wit, and underlying cynicism make her relationship with Indy fun to follow.

Of course Sophia isn't the only character with which Indy must contend on this quest for Atlantis. The Germans are after the secrets, other archaeologists give advice on finding clues, and certain Arabian merchants provide directions and items you can use while traveling.

A clue, an object, a machine, or another room appears at almost every turn as you move from Barnett College to Iceland to Monte Carlo to the deserts of North Africa. All the while you gather information and objects that eventually will help you find Atlantis.

Indiana Jones and the Fate of Atlantis isn't just one game, but three. Once you have its basics in hand and acquire the early clues to your trip, you can play three different paths. Have Sophia at your side in the *Team Path*; try the *Wits Path* if you like more-sophisticated detective work; or choose the *Fists Path*, where Indy plays antagonist with almost everyone he meets.

In each example, the road, waterway, or trail to the Lost City is different. Take the *Team Path*, for instance, and you'll search for clues in Iceland, Algiers, Tikal, and Monte Carlo. Pick *Wits* or *Fists*, and you'll end up in a car chase, searching the island of Thera, or riding camels across the Sahara.

Whichever path you pick, all lead to Atlantis. It's there that the game becomes the most complex. The rooms are many, the tools you'll need are scattered throughout the sunken city, and you'll have to find and use all of them correctly to continue.

The early parts of Indiana Jones, where plot and style of movement are set, play most easily. As you progress from one location to the next, finding and using clues and objects become more difficult as you close in on Atlantis. You'll find yourself holding onto all kinds of bizarre artifacts — fortunately, Indy has deep pockets, so you can carry everything you pick up. Other suggestions are standard adventure advice. If you're stuck, backtrack to see what you may have missed. Talk to all the characters you meet. You'll have to be a good archaeologist in this one.

LucasArts has worked hard to retain the flavor of the adventures we've come to expect from Professor Jones. But the company's also assembled a fine example of graphics adventuring. The game includes more than 200 rooms — few lead you into dead ends, which keeps the game moving and keeps you interested.

To get the most out of the game's *iMUSE* musical score, you need an

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Indiana Jones and the Fate of Atlantis is a hard-disk hog, but it's worth the space.

audio board. Install an AdLib, Sound Blaster, or Roland and the music that accompanies you through the game sets the mood for what's happening, or is about to happen. Sometimes it's too much of a good thing, though. As you stop to puzzle out a situation, the background music drones on, only compounding the natural frustration. At least you can turn it off for a bit of peace and quiet.

Indiana Jones and the Fate of Atlantis is simply a lot of fun to play. I punched out the bad guys. I discovered clues that led to the Lost City. I came up with just the right way to tackle a problem. I lost track of the time I spent with Indy and Sophia traipsing across the Atlantic, exploring the digs of North Africa, and finally uncovering the mysteries of Atlantis. And all the while, all I could think was "This is great!" If LucasArts decides to continue this series of Indy adventures where the big-screen productions left off, I'll be first in line.

LucasArts Games, P.O. Box 2009, San Raphael, CA 94912, (800) 782-7927; IBM PC or compatible, 540K RAM; VGA, MCGA; supports AdLib, Sound Blaster, Roland; requires 20MB or larger hard drive; $59.95

DUNE

By Barry Brenesal

Sometimes the left hand doesn't know what the right hand's doing. Virgin Games put a new spin on that well-worn cliché recently when its American and British offices discovered they'd both commissioned games based on the novel and film *Dune*. Both continued development and achieved very different results.

The European-based Dune, a combination graphics adventure and strategy game, made it to market first. You play Paul Atreides, newly arrived guest on Dune, who is entrusted by his father, Duke Leto, to raise spice production. The first part of the game is spent locating small colonies, enlisting their support, prospecting, and mining.

Later, you equip and train colonist soldiers to attack the ruthless Harkonnen family, which runs Dune like its own private slave pen. You also acquire the technical know-how to begin converting Dune's harsh desert climate into a temperate terrain filled with water and vegetation. Balance these three elements — setting the number of colonies for mining, fighting, and terraforming — and give your people a little equipment, and you'll win the game. Unfortunately, that's about all Dune has to offer.

PRETTY, PRETTY, PRETTY

Dune is one of several PC games to emerge recently from Western Europe with a style quite different from that of traditional domestic products. Perhaps because there's no single European language, on-screen actions in these imports are performed almost entirely through visual symbols. Millennium's Global Effect, Electronic Arts' Powermonger, and Virgin's Overlord and Realms are just a few examples.

These Western European developers also use hi-res, 256-color VGA and super VGA to put a hi-tech, science-fiction, or fantasy sheen on their stuff. They downplay moral niceties in the accompanying documentation, and concentrate instead on the mechanics of winning.

Although such generalities don't always match every title, Dune fits snugly into this category. Dazzling visual effects abound. The notepad that records important information you acquire is a hefty book whose animated pages turn thickly and scroll diagonally. (You almost can feel the heavy sheepskin texture as sound matches image.) Each room in the Atreides palace captures the futuristic, ceremonial feel of the movie, with rich hues and elaborate drawings. Several different kinds of 256-color sunsets create gradually shifting, strikingly beautiful sky-and-earth images as you swiftly fly the family ornicopter over the bizarre desert landscape.

Two problems blunt these effects. Characters carefully mouth unheard sentences behind the impressive, Vangelis-influenced soundtrack. (Dune's French developers didn't reanimate those screens or supply appropriately matching English text.) The other area of concern involves all those colony leaders you meet, who are nothing more than a single figure in an identical pose with many different (and particularly bad) haircuts. If the visual individuality of

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(PCGames)

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(Los Angeles Times)

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(*England's* Ace Magazine)

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Dazzling visual effects abound in Dune, but is it more like a slide show?

Dune's cast assembled back in House Atreides (patterned on the outlandish costumes and makeup of the film) were any milder, it wouldn't have mattered, but the clash is too obvious to pass unnoticed.

PAUL ATREIDES' SLIDE SHOW

Unlike most graphics adventures, Dune includes no object interaction or puzzles *à la* a Legend or Sierra title. Its screens focus almost exclusively on the people surrounding Paul, who provide information and advice. These folks include Duke Leo, Gurney Halleck, and Duncan Idaho. (Read Herbert's *Dune* to find out more.)

Dune is a game of static, ceremonial images rather than of decision making. You can coast along, clicking endlessly to move forward, following the prompts of friendly non-player characters who suggest the next simple course of action. Some games are free-form; others use a branching tree structure of multiple choices that lead to one of several preprogrammed conclusions. Dune is more like a flagpole — you either win by doing what everybody suggests or you do exactly nothing and lose. There's no middle path. There's nothing interactive about this game. In fact, it's less a game than a computerized, slightly animated slide show, with you as bystander.

If you enjoy stunning visuals and New Age-influenced electronic rock soundtracks, you'll want to get Dune. Otherwise, wait for Virgin's American version, which promises to merge the *Dune* mythos with SimCity-like goals and structure. Then Virgin Games' two hands can duke it out on the software-sales charts.

Virgin Games, 18061 Fitch Avenue, Irvine, CA 92714, (714) 833-8710; IBM PC or compatible; 640K RAM; VGA, SVGA; supports EMS/XMS expanded memory; supports AdLib Gold, Sound Blaster, Sound Blaster Pro, Roland MT-32/LAPC-1; requires hard disk; mouse recommended; $59.95

PACIFIC ISLANDS

By Peter Olafson

Join the Army and see the world? Not if you're commanding a PC tank platoon. You're lucky if you see more than a slash of countryside through an oblong slot or, at best, a view from its top hatch.

That wouldn't be so bad if you were flying the latest stealth toaster oven, where what you see out the windshield is what you get. But tanks roam in packs, and while tank simulations let you hop from tank to tank, or even into map mode to get the big picture, at a given moment one hand rarely knows what the other hand's doing. The result, often as not, is that the other hand gets blown to smithereens eventually.

So Team Yankee's novel security-console approach to small-unit armored engagements must have seemed a welcome relief to many. It offers four simultaneous quarter-screen views — one for each four-vehicle unit — through which you can see everything each unit sees, and even exert a large measure of control. The three other hands are in plain sight.

Team Yankee's follow-up, Pacific Islands, reprises that success on a larger and more-elaborate scale, in a campaign across a five-island atoll. The first game was good, but short. The sequel is very good, and is likely to keep you busy for quite some time.

G.I. JOE

If you skipped Team Yankee, this approach to armor simulation may take some adjustment. It isn't the usual scenery-by-geometric-shapes approach. Empire's designers use a combination of detailed bit-mapped objects and backgrounds, and filled-polygon buildings to achieve results that are more striking and lifelike than anything you've seen in a tank game.

The tanks look terrific coming by (the redoubtable M1 Abrams plays a large role here), and when they burn, boy, do they burn. Never has a post-fire-

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Pacific Islands offers 25 scenarios and lots of action.

fight battlefield — burning hulks all over the place — looked more realistic. Palm trees and statues now dot the landscape. There's more suggestion of physical depth and more of a world out there, not just The Other Side with line-of-sight obstacles in the way.

In some respects, this is simply the bigger game that Team Yankee should have been and wasn't. The original had just five scenarios. When complete, they were simply recycled and pitched at a higher difficulty level. Pacific Islands offers 25 scenarios and a measure of control over their order. It has a nice long life.

And Pacific Islands is a lot of fun. Dedicated simulation players may find fault with the consolidated controls and arcade elements, which depart from what you've come to expect from games such as MicroProse's authoritative M1 Tank Platoon or Spectrum HoloByte's sadly neglected Tank. And it's true that they're not strictly authentic.

But for the gamer who doesn't think he has to live the tanker's life to play the game — managing 16 vehicles is either drudgery or frenzy — it's the easiest system for the average G.I. Joe. Each four-vehicle unit has one view, one gun, and one set of controls. There's no turret turning, no range estimating, no gun elevating. It's just point, then click, then watch the sweetest little fuel-fed mushroom cloud you've ever seen blossom over the target. And when you have all four units on screen, they're all active at once; you have only to skate the mouse over to another window to do your business.

The casual observer may feel there's not much new here, that this isn't so much a redesign as a dolled-up data disk. But the core system of Team Yankee was already pretty slick, and it makes sense to make most of the refinements around the edges. The scenery is more elaborate, and includes more buildings, which keel over and send up fireworks when destroyed. Objectives are more complex; the very first mission has you going after a runway, a communications center, and fuel dump. The mines are a nifty addition, and morale and repairs lend an extra dimension over the long haul. And going that final mile can still be tough; the game retains Team Yankee's nasty habit of burying T-72s where the sun don't shine.

Pacific Islands also hands you a $55 million budget. This has to be the first time that troops in the field have had their fingers on the purse strings, and it feels a bit out of place. ("That's a negative on the recon of the woods, sergeant. We can't afford it.") This is a war game; let the DOD handle the spreadsheets.

You'll want to fire a warning shot at the game's premise as well. It's goofy. In Team Yankee, you had the big, bad Soviet Union to pick on, but they've punked out and now the enemy's been reduced to . . . would you believe renegade Soviet commies backed by North Koreans in the takeover of . . . Yama Yama?

If Argentina needed the Falklands, then maybe, just maybe, renegade Russian reds need Yama Yama. Strange, especially because Pacific Islands' docs claim that your outfit was returning from the Persian Gulf — the ideal setting for a Team Yankee II. Why didn't they just stay put?

Empire Software/ReadySoft, 30 Wertheim Court, Unit 2, Richmond Hill, Ontario L4B 1B9, Canada, (416) 731-4175; IBM PC or compatible; 550K RAM; CGA, EGA, VGA; MS-DOS 2.0 or later; supports AdLib, Roland; mouse recommended; $49.95

POWERMONGER

By Bernie Yee

Polonius: Do you know me, my lord?
Hamlet: Excellent well; you are a powermonger.
— with apologies to the Bard

Weary of playing the virtual god in Populous? Can't wait for Populous II? Enjoy SimCity and Civilization? Powermonger is right up your alley.

Designed by the U.K.'s Bullfrog, distributed by Electronic Arts, and recently ported over to the PC, Powermonger satisfies that lust in all of us — power, power, more power. With a look and feel straight from Populous (no wonder, because Bullfrog created that ground-breaking game, too), Powermonger lays stunning graphics atop a strategic framework reminiscent of MicroProse's Civilization. This is a game that's not only fun to play, but offers just the right amount of strategic head butting for everyone but the hard-core gamer.

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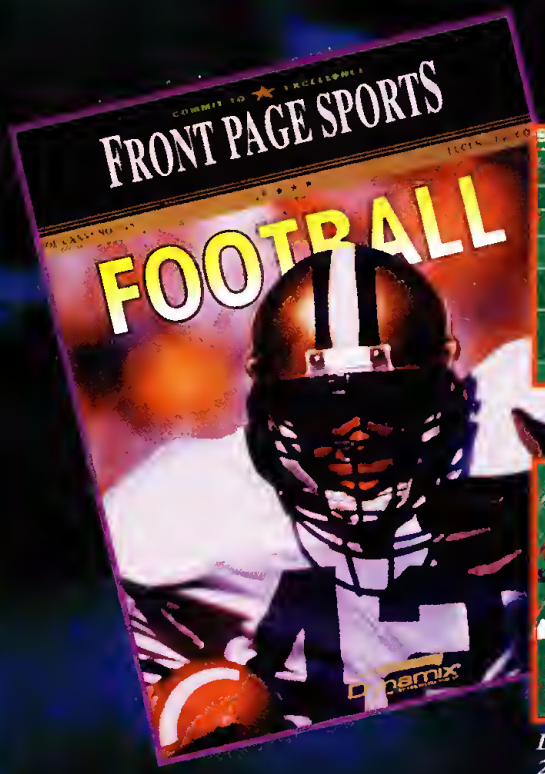

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Powermonger strips you of your Populous-style divinity, and demotes you to an ubermensch, a leader of a people in search of land. This is essentially a real-time strategy game, where you give orders to followers and watch them carry out tasks.

Powermonger's display is instantly familiar to Populous players — a chunk of land shows in a skewed isometric view, while the surrounding board is packed with command icons. That board is encircled by other wannabe powermongers, too, cartoonish and dressed in warlike finery. The three-dimensional landscape teems with anthill-like activity — people, boats, water, storms — and in VGA features astounding detail. Powermonger also swiped Populous' point-and-click interface, so you'd better have a mouse handy.

The playing field, or world, consists of 195 areas to subdue and conquer. While a simulated 3-D display shows the immediate area, a sidebar full-world map lets you jump around and see what's doing on the other side of the mountains.

Powermonger's world functions realistically, as do the worlds in the Ultima series, for instance, because the inhabitants have various activities, professions, and habits. Sheep and shepherds dot the landscape, seasons come and go, and when they change, the driving rain turns to snow falling like Apollo's arrows. Although you're not a god capable of inflicting various acts of supreme retribution upon your enemies (as you are in Populous), you can access information for which Hannibal would have died. With your mouse, you can zoom into and out of various parts of the world, examine objects (the products of invention) and inhabitants, delve into their settlements and activities, and, of course, give orders to your underlings.

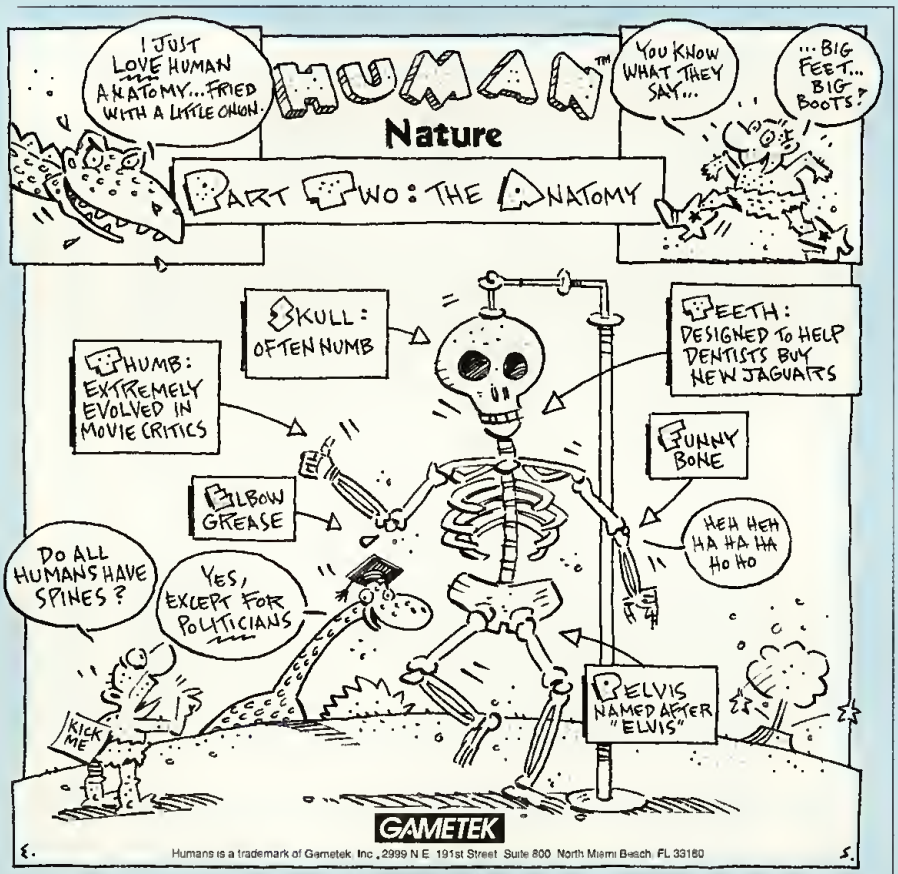
Your choice of commands is simple, but covers everything a power-hungry leader could need — move, attack, gather food, conscript men, invent, trade, offer alliance, and spy. You can pursue each command to three levels — passive, neutral, and aggressive — making your command and management choices flexible and relatively detailed. Powermonger is more simplistic than, say, Civilization, but not so much that the game suffers from terminal dimness. In fact, Powermonger plays very agreeably under its command structure, so you can easily do all you need to do for your greater glory.

Powermonger begs comparison to Civilization, an earlier (and ultimately more complex) conquer-the-world game. As in Civilization, a smart would-be powermonger should pursue invention as aggressively as possible to get to the good stuff — projectile weapons, perhaps. (Here, though, you can recover enemies' inventions on the battlefield, too.)

But though Powermonger doesn't aspire to be another Civilization, it could have used a little more realism in setting the game's dynamics. In Civilization, players often had to deal with civil insurrection in captured cities. In Powermonger, no such threat exists, no matter how savagely you advance (although if you capture territory at lower levels — passive or neutral — you can preserve its manufacturing or agricultural resources to better fuel your war machine). Once you capture land, you can forget about any internal threat, but competing computer powermongers are always ready to jump on your rear, so to speak.

It's clear that Powermonger favors more-aggressive tactics than does Civilization. You'll need subtler forms of aggression, such as spying and economic warfare. If you maintain intact communities, they're more productive, but that means your enemies may capture (and indeed will try to capture) that territory. Scorched-earth warfare, though immoral, is very, very effective. But remember that your subordinates can do a pretty effective job on their own.

Powermonger also offers a two-player modem option, a sure way to add



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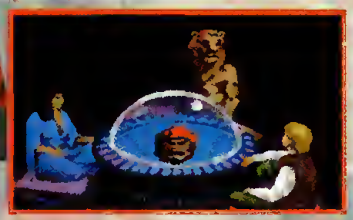

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This is the newest chapter in the series *Compute* magazine called "a breakthrough in adventure game design." Play as different character types, approaching problems with different skills and solutions. Every decision you make builds your Hero... and shapes his destiny.

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Powermonger's 3-D landscape teems with activity.

dimension to the game. Powermonger is downright elegant, from its interface and display to its entertaining mechanics. This game has a deceptively addictive quality to match its playability and graphics spice. Nor are the graphics images stolid; it's almost as much fun to watch (and listen to its simple musical score) as it is to play. Powermonger even includes a hint book, but it's a cheat — use it and you eliminate much of the fun of learning what this game is all about. And with the promise of future data disks, you'll be able to happily monger some power for months to come.

Electronic Arts, 1450 Fashion Island Boulevard, San Mateo, CA 94404, (800) 245-4525; IBM PC or compatible; 640K RAM; EGA, VGA; supports AdLib, Roland, Sound Blaster; requires hard drive; mouse recommended; $49.95

THE DAGGER OF AMON RA

By Cynthia E. Field

Shelve Nancy Drew. No mystery-book character can compare with Laura Bow — intrepid reporter, amateur sleuth, naive Nellie. In The Dagger of Amon Ra, the second "chapter" in the Laura Bow Mystery Series, Sierra's Roberta Williams manages to capture the spirit of the Roaring '20s in a murder-mystery romp through the Big Apple.

Laura Bow leads the game's cast of endearing — if not enduring — characters. Somehow managing to earn a college degree since her initial exploits in The Colonel's Bequest, Laura heads for New York and a job with the city's *Daily Register News Tribune*. Metro cub reporters often pay their dues writing obituaries, but Laura's first assignment is a real plum: investigating the theft of an Egyptian antiquity, the god Amon Ra's dagger, from the Leyendecker Museum. What is it with these women? When Laura Bow appears on the scene — or Jessica Fletcher visits her friends on TV — people start turning up dead.

Teenaged girls and adult women, in particular, will enjoy this serpentine adventure for its covert clues, digitally sampled soundtrack, and beautiful scenery. In short, getting killed has never been so much fun.

MURDER, THEY WROUGHT

Like a stage play, The Dagger of Amon Ra is scripted in six acts, which labor under such titles as "A Nose for News" and "Rex Takes a Bite Out of Crime." The game's documentation advises you to "save early, save often," good advice in almost any adventure or role-playing game, but especially important here. Just make sure you save the game with a different name as you finish each act. That way, you can easily resume play at any starting point should you encounter a dead end.

As Laura, you explore New York City's streets and neighborhoods, as well as its most prestigious repository of Egyptian artifacts, dinosaur skeletons, still-life paintings, and even stiller stiffs. In addition to the Leyendecker Museum, the game's itinerary includes the local precinct station, Lo Fat's Chinese laundry, and the 12th Street docks where you meet looks-to-die-for Steve Dorian, the stevedore.

Sierra's game designers are obviously equal-opportunity jokesters. They poke good-natured fun at everything (contact Officer Frendlee for tickets to the Policeman's Ball) and everybody. Take Dr. Ptahsheptut "Tut" Smith, the "Egyptologist with a past"; Detective Ryan Hanrahan O'Riley, the Irish cop; or Countess Lavinia Waldorf-Carlton, the rich widow with the paint-roller makeup job. Then there's friendly Wolf Heimlich, the museum security guard, who maneuvers you away from restricted areas such as the gift shop or the mastodon room with all the finesse of a Nazi stormtrooper.

Unlike some CD-ROM-based games, The Dagger of Amon Ra doesn't boast digitized speech. Interchanges between the game's characters are simulated by pop-up dialog boxes and animated portraits. It's surprising that Sierra's technique of mimicking a speaker's dialect through the printed word brings characters to life. You can't confuse O'Riley's on-screen brogue, for instance, with Rameses Najeer's exotic lisp or Yvette Delacroix's *pardonnez-moi*.

But not every character is as seemingly harmless as the homeless drunk, Rocco the cab driver, or Ziggy the police informant. During a pit stop at the local speakeasy, a flapper floozie propositions you in the ladies' rest room. Count your blessings she's not out to murder you. Fortunately, it's easy to escape such dicey situations.

History records the evolution of man's journey to the skies... ...Now you can relive it.

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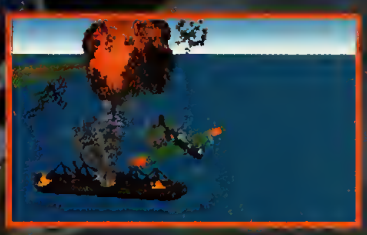

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Graphics artistry in The Dagger of Amon Ra brings the characters to life.

The Dagger of Amon Ra features the standard Sierra icons for moving around, looking at objects, talking to people, and picking up nifty items to stow in your purse. In addition to the usual icons, Amon Ra features a reporter's notebook — the names of new people, places, and things are entered automatically as you gather clues. Interviewing a character is as easy as clicking on him or her with the question-mark or notebook icon.

Obviously anticipating the silly, stupid things you'll do with icons, Sierra has injected huge doses of humor into this game. In some cases, in fact, the game sounds just like Mom: "Don't touch it. You don't know where it's been."

You can select icons and inventory items from the game's menu bar, but it's easier and less distracting to switch by clicking the right-hand mouse button. Amon Ra may not require a mouse, but you'll be lost without one. The Dagger of Amon Ra doesn't demand state-of-the-art graphics, a perky microprocessor, or a sound board, either, but these niceties boost your enjoyment. A control panel lets you customize animation speed and sound volume. Even on a 16-megahertz 386SX, you can practically make Laura run for her life.

The near-perfect blending of sound effects, music, and graphics in Amon Ra adds up to artistry. As Laura's train pulls into New York, you hear its whistle blow and brakes screech. The sputtering of early automobile engines and the honking of taxi horns enliven each street scene. The game's soundtrack creates an authentic '20s ambience with the Charleston playing at the speakeasy and an Irish tune lilting as Laura interviews O'Riley. During the game, other melodies — including Joplin-like ragtime and the hoity-toity fundraiser waltz — help move the action along.

Music is only one of the ingredients that combine to make Amon Ra a play-your-cares-away adventure game. Hand-painted scenery, realistic animation, and 3-D scaling lend an almost movie-like feel. Special effects, including palette shifting, create the museum's eerie glow, simulate lights brightening in Laura's night train, and make day fade to night.

LIVE AND LET DIE

As you help Laura pursue all the news that's fit to print in this captivating whodunit, you vicariously witness what designer Bruce Balfour describes as "creative ways to kill people." (A paper cutter? You've gotta be kidding.) But no matter how you slice it, Laura will live to drink another Moxie — if you don't die laughing, that is.

Sierra On-Line, P.O. Box 485, Coarsegold, CA 93614, (800) 326-6654); IBM PC or compatible, 286 or faster; 640K RAM; EGA, VGA; supports AdLib, ProAudio Spectrum, Roland MT-32, Sound Blaster, Sound Source, Thunderboard; requires hard drive; mouse recommended; $69.95

BATTLE ISLE

By Wes Nihei

Think computers are taking over the world? Earth has nothing on the planet Chromos, where a power-mad defense computer, Skynett Titan, builds its own robot forces in an all-out campaign to wipe out the declining Drule Empire. In UbiSoft's Battle Isle, you lead the fighting forces of the Drule in a last-ditch struggle against Skynett.

The story line may sound like a forced marriage of *The Terminator* and *Colossus: The Forbin Project*, but who says games have to be original? At least here you get to do something about the evil electronics, not just watch the mayhem. Battle Isle is an easy-to-play, deliberately paced war and strategy game that puts a massive array of high-tech hardware at your command.

GIRDING YOUR LOINS

Battle Isle features a diverse set of challenges. You can assume the role of chief of staff for either side, play against the computer (your own as well as Skynett), or go head to head with a friend. Two-player contests get a bit cozy, as players share the keyboard (using different sets of keys) to make simultaneous moves.

Battle Isle's war takes place on an attractive. overhead-view, scrolling hexagon map. A side-by-side split screen provides observant players some insight into their opponent's strategy, but, as in chess, you must still execute your own counter-strategy. The computer makes its plays so quickly, there's no sense in even

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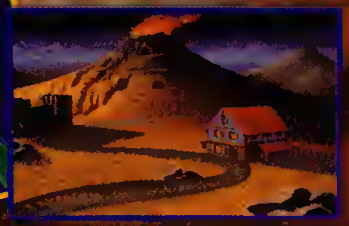

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watching its moves. The spoils of war are passwords that let you continue your campaign.

Diverse, too, is the equipment with which you fight your wars. As in chess, you move a variety of pieces (called *Units*) across the map; unlike chess, this game's pieces represent everything from lethal weapons to support vehicles. A secondary manual supplements the documentation with detailed rundowns on all the armaments.

In this grab bag of military hardware you'll find eight types of tanks and mobile armor (including humanoid combat robots called *demons*), four types of aircraft, six warships (including submarines and transports), and three types of support vehicles. Each unit is rated in nine categories, such as its maximum traveling distance, the types of terrain it can handle, weapon range, effectiveness against land or air targets, and defensive capability.

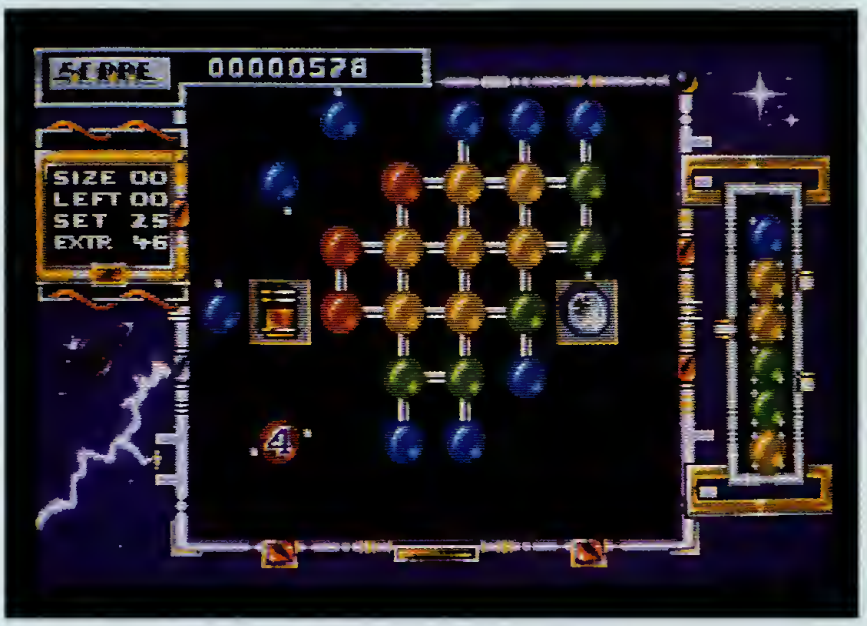
Battle Isle spreads itself across 32 maps (half dedicated to solitaire play, half to two-player games). On the early maps, you gain experience by commanding just a few tanks. Later on, your command includes the entire repertoire of weapons.

There's more to Battle Isle than just fighting. You must also construct depots to repair damaged units, produce replacements in your factories, and gather raw materials. As in modern warfare on Earth, you can win battles on Chromos just as surely by capturing or destroying your enemy's means of production as by defeating the forces in the field.

FLIP-FLOP ATTACKS

Despite its slick science-fiction-style graphics and its ultramodern military veneer, Battle Isle works at what's essentially a chess-like pace. During a game, you first choose moves for all your units, then let the computer know when you're ready to execute those moves. Only then does the PC go into action.

Game play focuses on two alternating phases: a move phase and an action phase. One player begins the game in move phase, while the other starts in action phase. The next turn, the phases are swapped. In the move phase you pick routes of travel for all your battle units.



Battle Isle has slick graphics, but it runs at a chess-like pace.

Once you select an outfit, the screen shows each possible route and destination for that unit. You make your choice, and move on to the next unit. After movement, your units engage the enemy in the attack phase. You get to watch every encounter via a zoom-in overhead view that shows individual pieces approach to within firing range and then begin the battle.

Battle Isle's simple interface uses a fire button and just four keys to move units, shoot, display unit-specific information, relay a general battlefield report, and depict a satellite view of the entire map.

ISLAND STRATEGY

Battle Isle tosses a sometimes dizzying array of battlefield decisions at you. The flip-flopping phases present challenging strategic choices, and frequently force you to think far into the future (another chess-like element). In the heat of battle, for instance, you may be prevented from moving a unit to its optimal spot because you know that your opponent could destroy it during the next action phase, long before your force can even complete its movement. You must plan ahead, and take into account the strengths, positions, and ranges of enemy units, as well as your own, to succeed at Battle Isle.

You also must direct sea-based bombardments, fly air cover with jets and helicopters, and intercept attacking air forces. Supportive, but critical, rear-echelon operations include loading and unloading forces, making repairs, and constructing replacements.

Battle Isle is no quick play — it takes time to finish a game, especially when two human generals go at it. Most campaigns are epics, but because Battle Isle saves up to nine games, you can always take a break and return to the action later.

Experienced PC strategists looking for new territories to conquer should match wits against the dangerous digital Skynett: Battle Isle may be easy to play, but it's tough to beat. Are you up for the challenge?

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CONFLICT KOREA

By Ed Ferrell

"I will go to Korea."
— Dwight D. Eisenhower, 1952

By the time Ike said that, the Korean War had settled down into a stalemated slugfest along the 38th Parallel. The fire and movement, the triumph and tragedy of American and U.N. arms, and the heady race to the Yalu, were long gone. Ike did go to Korea that election year, but by then the war had been decided.

You can do something Eisenhower, MacArthur, or Truman never could — change the course of the "police action" on this hostile peninsula. SSI's Conflict Korea puts MacArthur's corncob pipe in your mouth. Based on the company's recent Middle East title, this electronic war game is endowed with better, more-detailed map graphics and with three scenarios that let you play the conflict historically, in stages, or as a 1995 battle with modern weaponry and uncertain alliances.

ALAN ALDA NOT INCLUDED

On June 25, 1950, the North Korea People's Army invaded South Korea. In less than 30 days they drove deep into the country. By the end of the month, more than three-quarters of the nation belonged to the communists. Your job is to direct the defense and recapture of South Korea.

An easy interface lets you take charge immediately — not that you'll have any troops to command. The crushed South Korean army is weak at first, and thousands of refugees clog the way south. United Nations reinforcements are on the way, but until they arrive, you'll have to fight a delaying action.

Even after reinforcements arrive, you spend much of your time scratching your head. In the historical scenario, the U.N. troops are a hodgepodge of different nationalities that don't always fight well together. Everybody's here, from crack U.S. Marines to Dutch and Thai infantry brigades — even part of the army of the British Commonwealth.

You'll feel as much like a Hollywood deal maker as a general when you try to form lines to handle the enemy while keeping your military melting pot together, supplied, and at their best. Much of your energy is spent transferring troops and equipment to organize units capable of pushing back the Reds.

It may try your patience, but keeping nationalities together gets the best results, even if it means waiting to attack. And you'll avoid heavy damage by keeping seasoned troops together, giving greenhorns experience in battles where the odds are clearly in your favor.

With the U.N. forces comes growing air superiority. Air strikes originate from carriers and from Japan, but remember this is the '50s, and weather affects bombing accuracy considerably more than it did in the recent Desert Storm war. Select air groups to attack ground or air targets, or to interdict. When your air-strike phase comes up, just point and shoot and watch the readouts relay target damage and air strikes left. Instead of picking primaries and secondaries at base, you decide each target as the battle is waging, with the benefit of seeing the outcome of one strike before launching another — an advantage 1950 U.N. air command certainly didn't have.

As U.N. strength grows, you'll finally be ready to strike back. Send troops by sea to Inchon as MacArthur did, or roll up the east coast. Once recaptured, rail lines are the fastest way to the front, and by juggling supplies and movement points, you can mount massive attacks north against the communists. A select U.S. Marine troop is available for air drops to hot spots.

Tough decisions face you as you sweep South Korea free of the Reds, and striking a balance between a full-strength assault force and a prudently placed defensive line may well consume you. Arranging your forces in a tight knot of power should let you drive the invaders north, but

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without defensive troops left behind you'll go mad trying to swat the communist guerrillas as they pop up behind your front lines.

Send U.N. forces north of the 38th Parallel and you may face more Chinese than you can handle. Regard your troops' readiness carefully before pushing north to the Yalu River or, like MacArthur before you, only your skills in retreat will be tested. The only things missing from this historical simulation are atomic posturing and a drive into China, both pushed by MacArthur but rejected by his political superiors.

In the futuristic scenario, U.N. air power is said to be dedicated to other global conflicts, so it's not readily available. (If it were, the game would be a foregone conclusion.)

The map won't change much in the futuristic scenario. (When comparing current Korean maps with those of 1950, the game's designers were surprised to find virtually the same infrastructure.)

Return to the 1950s and play general in Conflict Korea.

Conflict Korea tests all aspects of a digital general's ability. You'll face every situation, from fighting a delaying retreat with crippled forces to directing powerful air strikes and launching amphibious assaults. It

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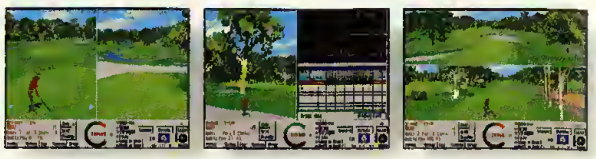

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DUNGEONMASTER

By Bernie Yee

The PC hangs its head in shame. Why? Because legend has it that the first true point-of-view fantasy role-playing game wasn't on a PC at all, but on that graphics powerhouse, the Amiga. Called Dungeonmaster, the game set the standard for computer role-playing games of its ilk.

But FTL, creator of Dungeonmaster, was incredibly slow in moving its prizefighter to the much more lucrative PC market. As it dawdled, other games such as Eye of the Beholder, Might & Magic III, and Bane of the Cosmic Forge showed up to rule the PC first-person roost.

Only now has Dungeonmaster appeared for the PC. Unfortunately, since it's nearly identical to the original Amiga version, it depends on technology several years old. Once far ahead of its time, Dungeonmaster is now faded and long in the tooth — but still fun.

FLATTERY WILL GET YOU NOWHERE

No longer is Dungeonmaster a graphics *tour de force*. By today's standards, its graphics images are comparatively simple and lack the detailed wall sets found in Crusaders of the Dark Savant or Might & Magic III. In fact, the screens are so simple that they look more like EGA than the 256-color super VGA extravaganza you might expect. Nor is the audio portion of the game of any real note (pun intended). While FTL provides a parallel-port sound device (which provides adequate sound), it keeps you from using your printer.

Dungeonmaster's interface is the simple point-and-click, drag-and-drop object-oriented system found in many of today's games. In fact, SSI used the interface and other game mechanics in its Legend series, such as Eye of the Beholder. Buttons that open doors, pressure plates, hidden switches, glowing teleportation fields, and walls were almost literally copied by SSI from Dungeonmaster.

If nothing else, though, this imitation-is-the-sincerest-form-of-flattery cloning shows Dungeonmaster's good breeding. Featuring a solid engine and once-innovative game design, Dungeonmaster is largely combat

by the game itself.

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"...if you're serious about golf simulations, treat yourself to LINKS 386 Pro. And if you don't own a 386 to run it on, youi've finally got a real good reason to lay out the money for an upgrade."

Computer Gaming World:

"...if you have a fast 386 or 486, think of LINKS 386 Pro as a Ferrari or a Corvette."

"...the ground texturing is dramatically realistic."

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Dungeonmaster is fun, but its graphics images hail from a long-gone age.

driven, something else that fans of SSI's titles will enjoy.

Dungeonmaster fits into the already-full category of role-playing games that pit you against an evil super wizard. You begin as a guiding spirit, the apprentice of an archimage who has been banished by one of his own experiments gone awry. In his place is his evil half, who has grabbed control of your master's complex, and is about to discover an incredibly powerful magic secret.

You choose your party of four from 24 different champions, or you can roll them into new heroes. No monsters on the first level, just food that lets you get used to moving around, flipping switches, and picking up wheels of cheese. The complex is huge, with 14 levels of nasty beasts, but lacks any meaningful non-player character interaction. Nor does it include automapping. The puzzles are similar to those in Eye of the Beholder — find the right object, press the right sequences of switches. It's not very stimulating.

Dungeonmaster will be familiar to any Eye of the Beholder veteran. The character portraits are a good deal more primitive thanBeholder's, which makes you both applaud SSI's improvement of the game system it emulated, and wonder why FTL didn't juice up its own offering. As in Beholder, combat takes place in real time, with weapons and their appropriate attack modes. And as in the original Amiga Dungeonmaster, you can throw daggers, rocks, and other projectiles at inanimate objects to improve your skills. The "two-step" — a strategy that takes advantage of the artificial environment used to defeat beholders in Eye of the Beholder — is equally useful here.

MISSED THE BOAT

The magic system is the most interesting facet of Dungeonmaster. Similar to the system in Ultima Underworld, Dungeonmaster's offers your casters magic points that show how much mystic energy you can muster against those nasty purple worms. Unlike Underworld, this one gives you access to all the runes at the beginning of the game. Dungeonmaster's magic mechanics are flexible enough to let you cast the same spell with varying intensities, or even create magic potions (such as healing or poison) in a flask. The rune guide in the manual also serves as copy protection.

In the end, Dungeonmaster shows the virtues that made it a champ. The magic system is flexible, the proving grounds large, and the interface consistent. Because of its solid design, the game is eminently playable, even in an era when role-playing games run 20 megabytes or more. But don't bother with Dungeonmaster just because it's a bit of history — buy it because it's fun.

If FTL had ported Dungeonmaster over to the PC earlier, the company might now be bigger than SSI, and at the forefront of state-of-the-art role-play design. But that's only a fantasy.

FTL Games, 6160 Lusk Boulevard, Suite C206, San Diego, CA 92121, (619) 453-5711; IBM PC or compatible, 12MHz 286 minimum; 640K RAM; EGA, VGA, Tandy 16-color; supports AdLib, Sound Blaster, Sound Source, Tandy sound; requires hard-disk drive, mouse recommended; $49.95

THEATER OF WAR

By Ed Ferrell

The Game of Kings, they call chess. Maybe they should call it *The Old Game*, for chess can trace its lineage back to India of the 6th or 7th century. No matter what you call it, though, chess retains its popularity. A fair representation of ancient warfare and feudalism, chess offers enough of a challenge for modern minds to keep people castling 'round the world. The single mission of the game, seemingly outdated in today's societies, remains alluring — capture a king and win the game.

For all chess' timelessness, Three Sixty thought it could do better by updating the idea to more modern times. Theater of War is the result. In this game, you point and click your way through the challenge of chess-like war in three different scenarios.

Instead of rooks and knights, Theater of War has you controlling archers and catapults (*Medieval* scenario), tanks and machine guns (*Great War*), and bombers and radar dishes (*Contempory*). Each side's 16-man army is still composed of six distinct pieces; each side's goal remains the capture of the opponent's

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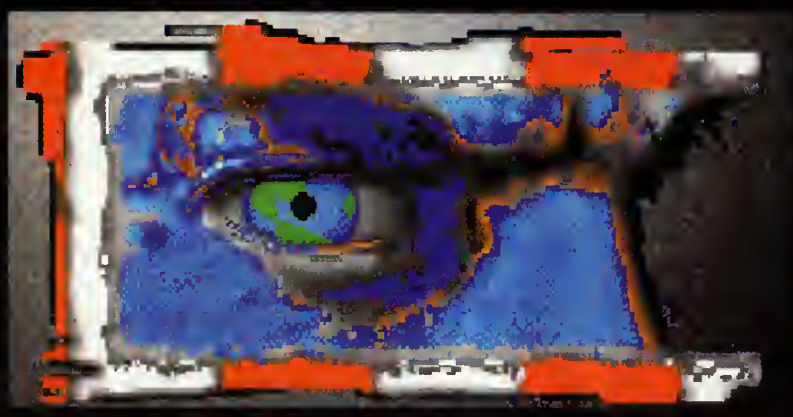

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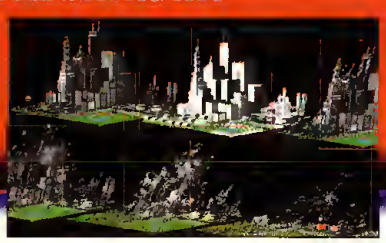

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leader (*emperor*, *general*, or *base*). The board still is composed of dark and light squares.

Somewhat arrogantly billed as the first super-VGA game (it's not), Theater of War couples hot screen technologies with some wildly abstract art direction. These futuristic playing-piece designs bear little relation to the recognizable pawns and rooks of a standard chess set, but in SVGA, these ray-traced objects have a 3-D look that really delivers.

This is no Franklin Mint offering, where the pieces are blue and gray — Kings are Robert E. Lee and U.S. Grant, knights are J.E.B. Stuart and the Georgia-burning Sherman. In those silly chess sets, the only thing different is the look of the pieces — the game remains the same.

More than looks separate Theater of War from its chess roots. In Theater of War, available commands include *Assassinate*, *Hibernate*, and *Inspire* — and the Ruy Lopez opening doesn't apply.

Even the size of the board can change, and each piece can modify the terrain of any square it enters. The lighter the square, the faster the movement; the darker, the slower. Order a piece to move to its destination, and it uses the fastest path, which isn't necessarily a straight line.

Power bars indicate the current readiness of pieces, and the prudent player will order weak units to recover before sending them back into battle. When overpowered, a unit ordered into defensive mode hunkers down and takes less damage from attacks as other pieces come to its aid.

In the *Medieval* set, most combat is still hand-to-hand, although catapults and archers can attack from a distance. In the *Great War* scenario, all units shoot projectiles, even the soldiers (pawns). Theater of War's *Contemporary* scenario, an abstraction of modern air combat, provides fighters, bombers, missile launchers, and includes orders to bomb, escort, and scramble.

Speaking of scrambling, playing chess with double clocks can't compare to the frenzy of Theater of War. Played in real time, Theater of War doesn't give you time to work a knight into a fork position, or prepare a discovered check. There's no clock. Warp tiles are available to control the thermostat, but even the game's slowest level demands quick thinking.

You must move your pieces in concert as supply lines form outward from the king-like piece, and broken supply lines will strand your pieces in place. In the *Great War* set, supply tents are available, while in the *Contemporary* scenario, planes can refuel, make repairs, and take on missiles from any base or tank that's in supply.

Its real-time game play moves too fast for typical chess head scratching, and the abstract design of the pieces takes some getting used to. Once mastered, though, the game's chess-like nature surfaces. But because the pieces move and fight so differently, you'll have to develop strategies chess never saw.

It's hard to say whether a good chess player has any advantage in Theater of War, but it's safe to say that after a few rounds with this game you'll find chess' pace positively plodding. A good chess player will probably enjoy some advantage from the gut-level geometry of Theater of War's play field, but I'd bet on a computer-game wizard over an old Russian chess maven any day.

Zoom keys and a perspective option toggle from a status screen to overhead or 3-D views, letting you crouch electronically around the board. Options let you store and share games, and play in two-person mode with one computer or via modem.

Theater of War even creates different music and background sounds for each game. The improvisation is based on the status of the game at hand, and when you're doing well, the music gets bouncy and upbeat. If your fortunes flag, the music becomes bluesy.

Theater of War offers a challenge, is chess-like in its basics, and includes enough high-resolution graphics to make it a pleasing place to pitch battle. Still, like the chess it calls papa, Theater of War demands your very best. It may not replace the

Continued on p. 78

Super Sonic

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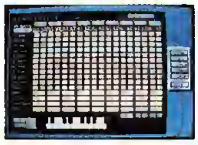
Easy to use music editor. This is a TEXT based music composer. So you can type in to compose your songs and to edit them. Of course you can also edit our sample songs.
Knowledge of musical symbols is not required.



SS Tone Editor

FM synthesizer chips generate various tone. Though SUPER SONIC includes many default tones, you can also create your own tone. You'll be surprised at what FM chips can do. You can play your songs with your tones.

SS Jukebox

SS Jukebox plays your songs and sample songs. You can put some songs together and create a song book.
SS Jukebox plays it continuously. Repeat play is also available.

SS Voice Editor

ADPCM control utility. It controls recording, playing and editing of recorded sound.
Edited sounds are usable as sound effects in your music playing.

SS Synthesizer Organ

On your PC keyboard, you can play the synthesizer organ with various tones. Background rhythm is added.
You can record your playing for SS Music Editor.

SS Movie
With your songs and graphics, SS Movie lets you produce presentations, educational graphics, animations anf etc , synchronized with music and screen.

SS Talker
Your PC keyboard speaks some words, alphabets and numbers along your typing.

SS Sound Driver
Memory resident sound driver.
Your applications can run with background music.

Various Sample Songs
Using SS Music Editor, sample songs can be modified by you.

All specifications are subject to change without prior notice.

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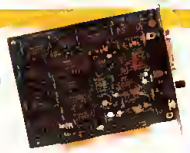
Super Sonic Jr.



SUPER SONIC Jr. is a low cost version of SUPER SONIC. Specifications are listed below.

- **AdLib upper compatible**
- **Stereo output**
  (Left & right channel output same sound)
- **11-voice FM music**
- **Output volume control**
- **Standard PC game port**
- **Bundled softwares**

SS Music Editor (for SUPER SONIC-Jr. version)
SS Tone Editor
SS Jukebox (for SUPER SONIC-Jr. version)
SS Organ (for SUPER SONIC-Jr. version)
SS Movie (for SUPER SONIC-Jr. version)
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Sample songs

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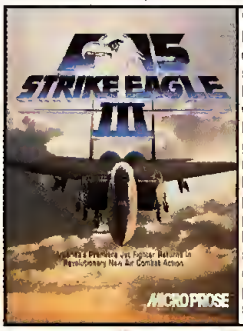

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In **'ALIENS ATE MY BABYSITTER'** you are Comander Keen armed with your neutral stunner and pogo stick. Hop into your homemade rocket and blast off to the rescue. Features 360 degree smooth scrolling action, full musical sound track with, ability to save your game, arcade and cinematic sequences. $32

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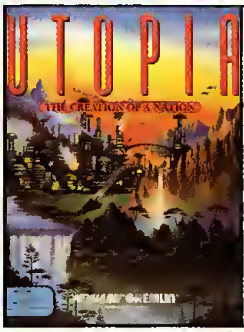

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familiar board and pieces when Bobby Fisher reprises his battles against the Russians, but it's enough to keep more-modern thinkers occupied in an abstract world of conflict.

Three-Sixty Pacific, 2105 South Bascom Avenue, Campbell, CA 95008, (409) 776-2187; IBM PC or compatible, 286 or faster, 2MB RAM, DOS 3.3 or later, DOS 5.0 recommended; VGA, SVGA; supports AdLib, Sound Blaster, Sound Blaster Pro; requires hard-disk drive, mouse recommended; $49.95

OUT OF THIS WORLD

By Wes Nihei

Lester Knight Chaykin is going where no one's gone before, and if you're smart, you'll go along. Interplay's Out of This World is an awesome adventure game, where a wacked-out experiment with anti-matter zaps Lester to a weird parallel universe. He wants to get back home, and if you can overcome some hardware-related speed problems, you can help.

Out of This World sports a unique look, one that uses a polygonal system of VGA graphics typically found only in flight simulators, and makes possible the game's flashy, outrageous, roto-scoped, real-time, side-view animation. It's more like directing a movie than playing a PC game. Cinema-slick close-up shots, pans, zooms, and scaling bring Chaykin's newly discovered world to life, and help showcase some superbly animated action sequences.

The sounds are some of the best around, and the music really rocks. The characters even speak. You may find, though, that trying to get the best sound out with your audio board eats up processor time and slows down the game.

These cinematic graphics spin a fascinating adventure. Your trek is lengthy, covering roughly 12 areas in the strange new world. You're free to travel back and forth across the land, but much of your quest takes place in labyrinthian underground caverns. The place is literally crawling with tenacious, carnivorous creatures, such as venomous slugs, tentacled aquatic nightmares, and savage feline beasts, but the real challenge comes when you encounter the brutish race of beings who populate this world. It's then that you become embroiled in an epic struggle of slaves versus slavers, although you'll be hard pressed to tell the difference just by looks.

You'll make a new friend, who has a mind of his . . . err, *her* . . . uhh, *its* own. Your buddy provides critical help early on, so stick with him . . . her . . . it. Later on, you suffer a forced separation, then your paths cross several times throughout the game. Be a helpful friend. Without your newfound partner, you won't survive, let alone finish the game.

ROCK 'N' ROLL, BRAINS 'N' BRAWN

Out of This World forces you to be fast with your fingers, but Chaykin's survival really depends on your brains, not your brawn. Problems range from the simple — how and where to recharge your weapon — to the complex, with several variations in between.

Game play is outstanding, but PC speed freaks will have to gear down. The action's fast when it should be, but it isn't as frantic as what you'd expect from an action game. You run, jump, kick, and shoot, but overcoming some critical obstacles calls for split-second timing. Expect to max out on good-looking death scenes.

Another interesting game-play plus is that the controls change depending on the situation. To escape one voracious feline beast, for instance, you must run for your life, lead the creature to a cliff, jump off the cliff, grab a vine, and then swing back over and past the beast. To break out of a cage suspended in the air, you must rock it back and forth until its mooring snaps. When you find a gun, you must learn how and when to use its firepower to create

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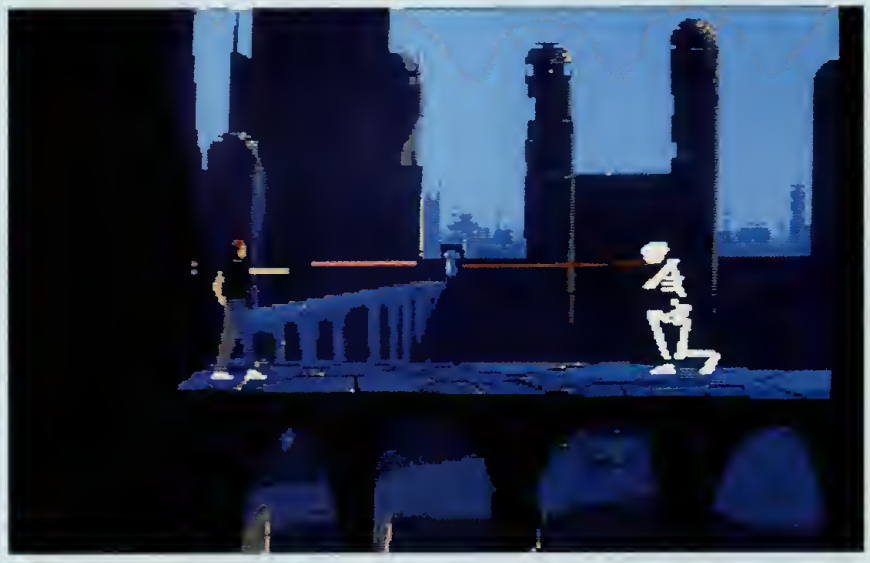

Out of This World sports a unique cinema-slick look.

an impenetrable shield and blast escape routes through walls.

You can use a joystick or the keyboard, but the default keyboard mode produces the fastest action. If you need speed, avoid memory managers, period. If you take on Out of This World, get ready to play something different. The animation is so lifelike that you'll genuinely fret about the fate of your otherwordly friend. The action's intense, sometimes frustrating, but always fun. The title says it all: This game's out of this world.

Interplay, 3710 South Susan, Suite 100, Santa Ana, CA 92704, (800) 969-4263, (714) 549-2411; IBM PC, Tandy, or compatible; 512K RAM, 640K for Tandy; EGA, VGA; supports AdLib, Roland LAPC-1, Sound Blaster, Sound Source; $59.95

TIME RIDERS IN AMERICAN HISTORY

By Gregg Keizer

Time for a change. With tabloid headlines such as *Bigfoot Sole Survivor of Custer's Last Stand* and *Great-Grandma Dread Wears Metal Curlers in Thunderstorm, Fries Hair and Proves Lightning Is Form of Electricity*, it better be time for a change. Something's gone wrong, terribly wrong, with history, and only you can set it right.

Time Riders in American History, The Learning Company's newest educational game, spins a web of facts-gone-bad through more than 400 years as it throws over 2000 clues and more than 100 historical characters at you. For the most part, you're looking for the same answers newspaper reporters search for — Who did What, When, and Where — though here you're digging into a mixed-up series of headlines from American history, not current events.

Repetitious and overly mechanical at times, Time Riders still manages to keep kids interested with an intriguing and changing story line. Its biggest fault is that it treats players as observers — you never go back in time yourself — but that flaw can't erase the game's positive qualities of solid education and a rollicking good time.

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Time Riders isn't the first kids' game to feature time travel, and it certainly won't be the last. Like science fiction, educational software just can't stay away from a good thing.

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Many scenes in Time Riders represent the best you'll find in educational games.

to teach history, or at least some of the facts of history. In Time Riders, the evil Dr. Dread is out to rewrite the past, using the power of telecommunications. From the satellite he's seized, Dread is transmitting false historical headlines, claiming, for instance, that his great-grandmother, not Ben Franklin, was the one who discovered electricity in lightning. Your job, as a Time Riders team leader, is to uncover the historical truth, then beam it to Dread's satellite. In the meantime, your mentor, the Benefactor, is busy assembling a rocket that will free the shanghaied satellite.

You don't walk into battle unarmed, though, for the Time Riders are well equipped — you call on several gizmos, from a time machine and evidence-gathering android to a biographical database and geographical locator. You even have two assistants — Amanda and Josh — who advise and aid you in your search for the facts.

Most of your time in Time Riders, in fact, is spent operating these machines and interacting with Amanda and Josh. A mouse works wonders here, for this game is utterly graphics-based and depends on its point-and-click interface for slick (and quick) navigation. (You can use the keyboard, but it's more a handicap than anything.)

The procedure, once learned, is identical each time you dig for real history. You read Dread's bogus headline, identify when the event really happened, spot the place, send your droid back into time for a look-see, read the information it returns with, identify the correct historical figure, then send your data to the satellite. You can switch the order, if you think you know the facts, but you must visit each machine before you can send your results to the satellite.

This repetition makes Time Riders a drag, especially during mid-game, for the process seems more rote than revolutionary. (To be fair, Time Riders isn't much more repetitive than other similar educational games, such as Where in Time Is Carmen Sandiego?.) Operating the primary machines — the TimeLine, Geofax, and Biodata — becomes tiresome, too, for there are a lot of buttons to push. Most are part and parcel of the game, but why force players to turn on each machine every time they use it?

A bigger problem, one much more ingrained in Time Riders' design, is that you never go back in time. Instead, you send a feline-looking robot to scout down the decades; KAT

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BOND WAS HOT STUFF.
SO WAS ARNOLD.
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MEGATECH

reports back with valuable informational snippets, but you never see the past. That's a shame, for it puts the player in the position of passive observer. It's as if you were a detective, but only heard the crime scene or criminal described secondhand.

FUN WITH FACTS

But that doesn't stop you from having fun with history. Time Riders is packed with facts, and works as a compelling game at the same time. The search for *who*, *what*, *when*, and *where* keeps you interested and moving along; the game's story line pulls you in even more. Dr. Dread pops up from time to time, and has a way of keeping you off balance.

After you've corrected a trio of fake headlines, for instance, he password-protects the satellite, forcing you to solve an anagram before you can transmit more data. At first, the jumbled words are simple, but as you progress, the puzzles get more difficult. You can retreat to the rec room for a turn at an arcade game that will help you solve the anagrams, but because you're racing against the clock, you can't spend too much time there. Later, the TimeLine begins to malfunction and KAT becomes incapacitated. The longer you play, the more you're on your own.

Time Riders' graphics and sound are up to The Learning Company's typically high standards, and then some. Early scenes of Dr. Dread are some of the best-looking images you'll find in a floppy-based educational game. And unlike other fact-based educational games, you don't need a separate reference book to play. Everything you need is in the game, from on-line help to a cleverly disguised database.

Even adults can learn a thing or two from Time Riders. The cast of historical characters is so diverse — you'll find the famous and the not-so-famous here, as well as several female and minority figures — that you'll discover quickly how much you didn't learn in high-school history class. Don't expect to learn cause and effect, though — the *why*, so to speak — from Time Riders. That's not what it does.

What it does do is keep kids entertained while it tests their knowledge of historical facts and figures, and their ability to do some elementary research. They may not crowd around it as eagerly as a Carmen Sandiego title — the chase that's so important to Carmen is missing in this game — but they'll have fun nonetheless. And as long as they're having fun, they may not notice how much they're learning. ❑

The Learning Company, 6493 Kaiser Drive, Fremont, CA 94555, (800) 852-2255; IBM PC or compatible; EGA, VGA, MCGA, Tandy 16-color; DOS 3.0 or later; supports Sound Blaster, Roland; requires hard-disk drive/3MB free; mouse recommended; $59.95

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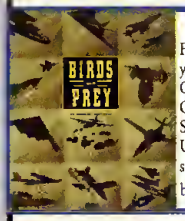

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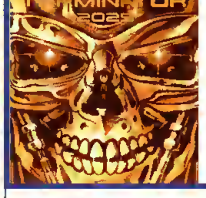

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DESIGNERS' NOTES

BANK ON IT

By Tom Hall

Ah, the sweet smell of success — teamwork, organization, and the right idea make for a potent recipe when you're cooking up a new game.

Id's detailed game plan calls upon each team member's strengths.

To paraphrase *Wall Street*'s Gordon Gekko, "Shareware, for lack of a better word, is good. Shareware is right. Shareware works." If you don't think there's money in shareware, then either you haven't tried, or you're going about it the wrong way.

There's a clear course to shareware riches, carefully delineated like the tracings of a draftsman. The road may not be easy, and not everyone can follow it, just as everyone can't drive on the same highway at the same time (though they seem to try in Dallas).

That path runs past the following signposts:

• **You need an idea.** A good idea. A new idea. People don't get excited about Checkers '92. If your work is derivative, it must be derivative of something not on the PC.

Commander Keen (one of our shareware games) may borrow heavily from Super Mario, for example, but its smooth-scrolling platform style isn't often seen on the PC. Maybe your idea isn't totally new (few are, after all), but if it's new to your audience, they'll eat it up.

• **You need a team.** To produce good software, you need a programmer, an artist, and a designer. In the old days, the programmer provided all those skills — whether he was up to the challenge or not.

The stakes are higher today. Few people have enough talent in all three areas to produce quality work. Those who try find out that they take three times as long (or more) to finish. Do what you're best at and let others do what they're best at.

For example, I have a programming degree, but I don't program at Id. Creativity is my strength, as is my ability to bring together disparate ideas. I let better artists and more-prolific programmers do their jobs. I do mine.

• **You need what's known as a *spec*.** Designing the program provides all those involved with a clear picture of the limits of what they can do, and exactly what they have to do. The *specification* (spec) details the type of data that needs to be created, how the game's characters will interact, how the user will interact with the game, how the screens will be laid out, and so on.

Now the artist can start drawing, the designer can sketch out levels and flesh out ideas, and the programmer can work toward a specific set of functional parts. You'll always add stuff, but if no one ever made a map, it would be difficult to find your way.

• **You need tools.** Once the program is designed, you need tools that let you enter data easily. At Id, for instance, we have tools to edit tile maps, make sounds, and grab graphics. Other useful tools are text viewers, LBM viewers, and palette grabbers. It's very hard to push a nail through a two-by-four.

• **You need persistence.** You have to follow your vision through to its end. If you don't, either you'll never complete your game, or some other person will beat you to the presses.

• **You need wisdom.** At some point, you have to know when the game is done. You have to know when more bells and whistles will hurt, not help. Like a poet, you must learn to cut even the most clever phrase if it doesn't fit. Like a cook, you must know when it's soup. If you love your program, let it go.

• **You need a trilogy.** This is true and possible only of games. Scott Miller's brilliant marketing concept at Apogee was to provide the first program free, then make the rest of the trilogy *not* shareware — if you want to finish the story, you've got to register.

At Id, we add cliffhangers and a slam-bang game you can finish in the first episode. Then people can't wait to get the rest. Without the trilogy concept, Id would just be a part of your psyche. ❑

*Tom Hall is creative director of Id Software, makers of **Commander Keen** and **Castlevania 3-D**, and one of the most successful shareware game publishers around.*

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POWER POLITICS

By Wayne Kawamoto

Whether you liked Ike or badmouthed Bush, you've got to admit one thing — the President of the United States is still the most powerful person in the world. If you were President, would the country see another New Deal? Two thousand points of light? A brand-new city on a hill? Son of Great Society?

As your teachers told you, any kid can grow up to be President. And now, anyone with D.C. True's insightful **Shadow President** can play the role. For some, the action may be too cerebral and slow, but for others, the chance to play President is compelling enough to make this simulation fun.

The date is June 1, 1990. Depending on your actions, how might the world be different today, two years later? Here's your chance to make a real impact — not waste time debating the morals of Murphy Brown, or the spelling of *potato*.

Shadow President is an interactive simulation in which you carry out foreign policy and control domestic issues. Throughout the game you consult with Cabinet members and other advisers, make decisions that affect the world, and view the results of your actions and your popularity ratings. (You do have to worry about re-election.) Will you provide humanitarian aid, increase social services, send out military advisers, or have the CIA do the dirty work? You even control the N-word button.

Every action carries potential rewards or risks. You can become a hero and watch your popularity soar, or make bad decisions that take your ratings below even Bush's. You might be thrown out of office in disgrace or even assassinated. In Shadow President, the polls bounce like House rubber checks, and kissing babies isn't going to guarantee re-election.

The main screen features a world map where you select specific countries and regions for closer inspection. Your advisers will keep you abreast of events, each in his or her own area of expertise. Although the game has some attractive graphics, an easy-to-use iconic interface, and animated interludes, it plays much like a text game. (You'll spend a lot of time reading.)

Based on the situation, do you want to improve diplomatic relations, strengthen economic ties, condemn a country's action, regulate trade, aid rebels in another country (even order the assassination of a leader), or take military action? At home, you can raise or lower taxes and set the budget.

What makes Shadow President worthwhile is that it's a simulation in the same vein as SimCity or SimEarth. There's no real way to win; instead, you measure yourself against the agenda you've set. You may want to strengthen U.S. influence throughout the world, raise our standard of living, act as referee, or concentrate on arms control. Goals are up to you, not special-interest groups.

Advisers keep you up to date, but war and peace are up to you.

Shadow President is thorough. You can access economic, social, and military facts on some 150 countries. The game also includes a *CIA World Factbook* that's up to date for the game's time span. Filters such as those in Software Toolworks' World Atlas show comparative statistics on literacy rates, population, world power, and quality of life. World maps color-code each country's relative values. Graphic cityscapes visually detail GNP, military might, and quality of life in a single image. It gives you all the tools you need to view the global situation. You literally have the whole world in your hands.

Shadow President gets my vote. Here's your chance to "bring America back." Maybe you'll earn a place in history beside the other great Presidents, maybe even someday appear on the robotic stage at Disney-World. In America, anything's possible. ❑

D.C. True, 1840 Oak Ave., Evanston, IL 60201-3686, (708) 866-1864; IBM PC or compatible, 12MHz or faster recommended, 640K RAM; EGA, VGA; supports AdLib, SoundBlaster, SoundBlaster Pro, Sound Source, Pro-Audio Spectrum, Speech Thing, Voice Master, Sound Master, Street Electronics Echo II, Lantastic Voice Adaptor, Media Master, Talking Technology; requires hard disk, mouse; $69.95

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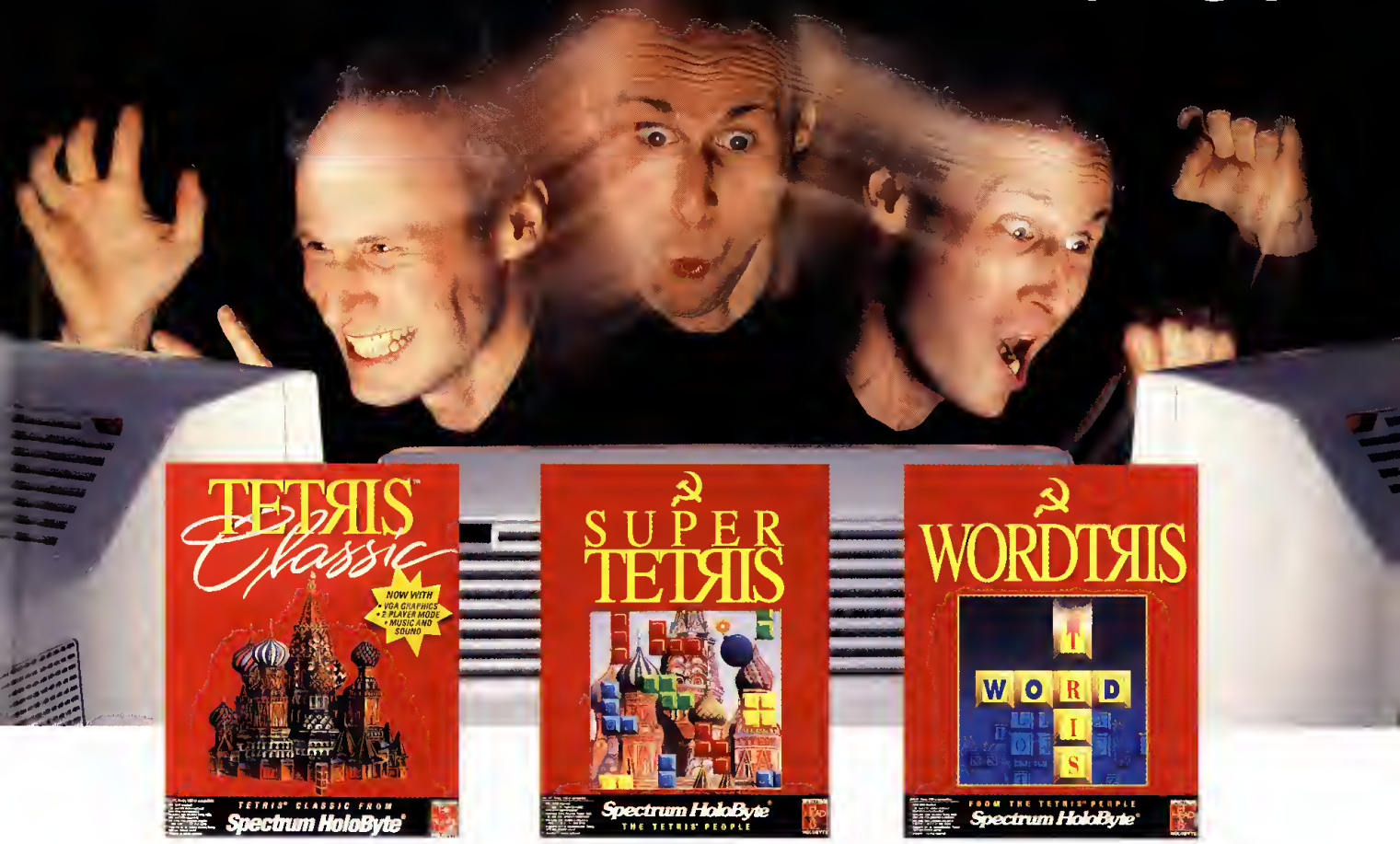

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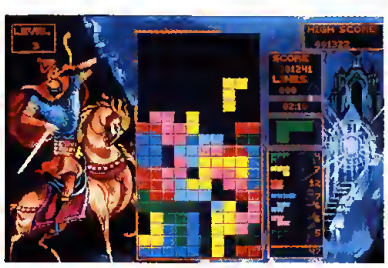

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